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Cover: *Chrysilla volupe* male (dorsal view)—the jumping spider with metallic colours. Back cover: *Peucetia* species female (dorsal view)—mother lynx spider guarding newly hatched spiderlings. © John T.D. Caleb



Spider (Arachnida: Araneae) fauna of the scrub jungle in the Madras Christian College campus, Chennai, India

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Abstract: A total of 108 species of spider species belonging to 84 genera and 25 families were identified from the scrub jungle of the Madras Christian College campus. *Pagida salticiformis* (O. Pickard-Cambridge, 1883) is recorded for the first time from India. *Langona tigrina* (Simon, 1885) is rediscovered 135 years since its first description and the unknown male is described and illustrated. A new combination, *Langona davidi* (Caleb, Mungkung & Mathai, 2015) comb. nov. is proposed for the species previously placed in *Phlegra*. Three new synonymys have been recognized: *Clubiona foliata* Keswani & Vankhede, 2014 and *Clubiona pashabhahi* Patel & Patel, 1973 are junior synonyms of *Clubiona filicata* O. Pickard-Cambridge, 1874 and *Myrmarachne megachelae* Kumar & Mohanasundaram, 1998 is a junior synonym of *Myrmaplata plataleoides* (O. Pickard-Cambridge, 1869). Distribution records of several species have been updated and as many as 31 species are recorded for the first time from Tamil Nadu State. The family Salticidae is the most diverse with 28 species belonging to 22 genera followed by Araneidae with 19 species in 11 genera. Guild structure analysis revealed seven feeding guilds of which, stalkers and orb-web weavers are the dominant feeding guilds followed by ground runners, ambushers, and scattered line weavers, respectively.

Keywords: Diversity, guild structure, new combination, new record, new synonym, taxonomy, tropical dry evergreen forest.

Abbreviations: AER—anterior eye row length; ALE—anterior lateral eye; AME—anterior median eye; EFL—eye field length; MCC—Madras Christian College, Tambaram, Chennai; NCBS—National Centre for Biological Sciences, Bengaluru; NHMW—Natural History Museum, Vienna (curator Christoph Hörweg); PER—posterior eye row length; PLE—posterior lateral eye; PME—posterior median eye; RTA—retrolateral tibial apophysis; SRC-ZSI—Southern Regional Centre, Zoological Survey of India, Chennai; VTA—ventral tibial apophysis; WILD—Wildlife Information Liaison Development, Coimbatore.

சுருக்கம்: 84 பேரினங்கள் மற்றும் 25 குடும்பங்களைச் சேர்ந்த மொத்தம் 108 வகையான சிலந்தி சிற்றினங்கள் மெட்ராஸ் கிறிஸ்துவ கல்லூரி வளாகத்திலிருந்து அடையாளம் காணப்பட்டன. *பாகிடா சால்டிகி:பார்மிஸ்* (ஓ. பிக்கார்ட்-கேம்பிரிட்ஜ், 1883) இந்தியாவில் முதல் முறையாக பதிவு செய்யப்பட்டுள்ளது. *லங்கோனா டைக்ரினா* (சைமன், 1885) அதன் முதல் விளக்கத்திலிருந்து 135 ஆண்டுகளுக்கு பிறகு மீண்டும் கண்டுபிடிக்கப்பட்டது மற்றும் அறியப்படாத ஆண் பாலினம் விவரிக்கப்பட்டுள்ளது. ஒரு புதிய பரிமாற்றம், *லங்கோனா டேவிடி* (காலேப், முங்குங் & மத்தாய், 2015) முன்னர் பிளெக்ராவில் வைக்கப்பட்ட இனங்களுக்கு முன்மொழியாக்கப்பட்டது. *கிளபியோனா ஃபோலியாட்டா* கெஸ்வானி & வான்கடே, 2014 மற்றும் *கிளபியோனா பஷாபாய்* பட்டேல் & பட்டேல், 1973 இதை *கிளபியோனா ஃபிலிகேட்டா* ஓ. பிக்கார்ட்-கேம்பிரிட்ஜ், 1874 ஒத்த சிற்றினமாக கண்டுபிடிக்கப்பட்டுள்ளது. *மிர்மரகினை மேகச்செலே* குமார் & மோகனசுந்தரம், 1998 இதை *மிர்மபிளடா பிளட்லெய்ட்ஸ்* (ஓ. பிக்கார்ட்-கேம்பிரிட்ஜ், 1869) ஜூனியர் ஒத்த சிற்றினமாக கண்டுபிடிக்கப்பட்டுள்ளது. பல உயிரினங்களின் விநியோக பதிவுகள் புதுப்பிக்கப்பட்டுள்ளன மேலும் 31 சிற்றினங்கள் முதன்முறையாக தமிழ்நாடு மாநிலத்திலிருந்து பதிவு செய்யப்பட்டுள்ளன. 28 சிற்றினங்கள் கொண்ட சால்டிகிடே மற்றும் 19 சிற்றினங்கள் கொண்ட அரேனிடே ஆகியவை மிகவும் மாறுபட்ட சிலந்தி குடும்பங்களாக உள்ளன. ஏழு உணவுக் குழுக்களை கொண்ட இதை ஸ்டாக்கர்கள் மற்றும் உருண்டை-வலை நெசவாளர்கள் ஆதிக்கம் செலுத்தும் குழுக்கள் எனப்படும், அதைத் தொடர்ந்து தரையில் ஓடுபவர்கள், பதுங்கியிருப்பவர்கள் மற்றும் சிதறிய வரிசை நெசவாளர்கள் இறங்கு வரிசையின் முறைப்படி காணப்படுகின்றன.

Editor: Anonymity requested.

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For Author details & Acknowledgements see end of this article.



INTRODUCTION

With over 48,000 described species (World Spider Catalog 2020) and over 1,20,000 expected species (Agnarsson et al. 2013) spiders are one of the most diverse invertebrates that can be found in almost all terrestrial habitats except Antarctica (Turnbull 1973). Their diversity in India is represented by 1,830 species in 470 genera and 60 families (Caleb & Sankaran 2020; World Spider Catalog 2020).

The spider fauna of the tropical dry evergreen forests (TDEF) from Chennai and its surrounding regions is known only by a few early works of Pocock (1900, 1901), Sherriffs (1919, 1927), Gravely (1921–1935), and Phanuel (1963). There was, however, a great lapse thereon for about more than half a century until further studies took place. Recent studies added considerably to the knowledge of the group with numerous new discoveries including the description of new species, new records and rediscovery of species (Caleb & Mathai 2013, 2014a,b, 2015, 2016a; Caleb et al. 2015, 2020), indicating that there is more to explore from these regions. The present work aims to provide an overview of spider diversity known from the scrub jungle enclosed within the Madras Christian College campus, Tambaram, India.

MATERIALS AND METHODS

Study area

Spider specimens were collected from within the Madras Christian College (MCC) campus from 2010 to 2015. MCC is one of Asia's oldest educational institutions in Chennai established in 1837. It is presently situated on a 365acre (1.48km²) campus, at Tambaram (12.923–12.920 °N & 80.120–80.123 °E), on the southwestern extremity of Chennai City (Images 1A–B). The campus has various habitat structures including open grasslands, thick forest patches, scrub jungle patches, and water bodies (Images 2A–H). It has a rich, diverse and ever-changing scrub, because of the broad, dense corridor in the south leading to the Vandalur Reserve Forest. The vegetation type is a true scrub jungle (sub-type 7/DS1) 'tropical dry evergreen scrub' which is a remnant of the tropical dry evergreen forest along the Coromandel Coast (Champion & Seth 1968) with dissymmetric climate (Meher-Homji 1974, 2007). The campus has a remarkable species diversity of both flora and fauna (Sanjeeva Raj 2011). Flora of over 400 species of plants from 95 families both native and exotic has been recorded. They occur as discontinuous or dense scrub-woodlands and thickets (Lal & Livingstone

1978; Amirthalingam 2005).

Collection, preservation, and identification

Live specimens were photographed in the field and then collected. They were then taken to the lab and photographed using a Nikon D60 DSLR 18–55 mm, for macro capability the regular lens was removed, reversed and mounted on the body with the help of a ring attachment. Collected specimens were preserved in 70% alcohol. Specimens were later examined in detail using a NIKON SMZ1000 stereoscopic microscope. Male palps were detached, examined and kept in a separate vial along with the original specimen and female genitalia were excised using fine surgical scalpel. The epigyne was then cleared in 10% KOH aqueous solution. Leg measurements are given as total length (femur, patella, tibia, metatarsus, tarsus). All measurements are in millimetres (mm).

Identification was made by the help of taxonomic keys and diagnostic illustrations provided by Pocock (1900, 1901), Gravely (1921a,b, 1924, 1931), Tikader (1980a,b, 1982), Tikader & Malhotra (1980), Tikader & Biswas (1981), Sethi & Tikader (1988), Proszynski (1992, 2016) and other relevant literatures. The specimens studied are deposited at the Department of Zoology, Madras Christian College, Tambaram, Chennai, Wildlife Information Liaison Development, Coimbatore, National Centre for Biological Sciences, Bengaluru, and Southern Regional Centre, Zoological Survey of India, Chennai. The terminology follows the World Spider Catalog (2020). Taxonomic references pertaining only to Indian records have been mentioned for each species. For detailed taxonomic records refer the World Spider Catalog (2020).

SURVEY OF SPECIES

Family Araneidae Clerck

Genus *Anepsion* Strand

Anepsion maritatum O. Pickard-Cambridge, 1877 (Image 24A)

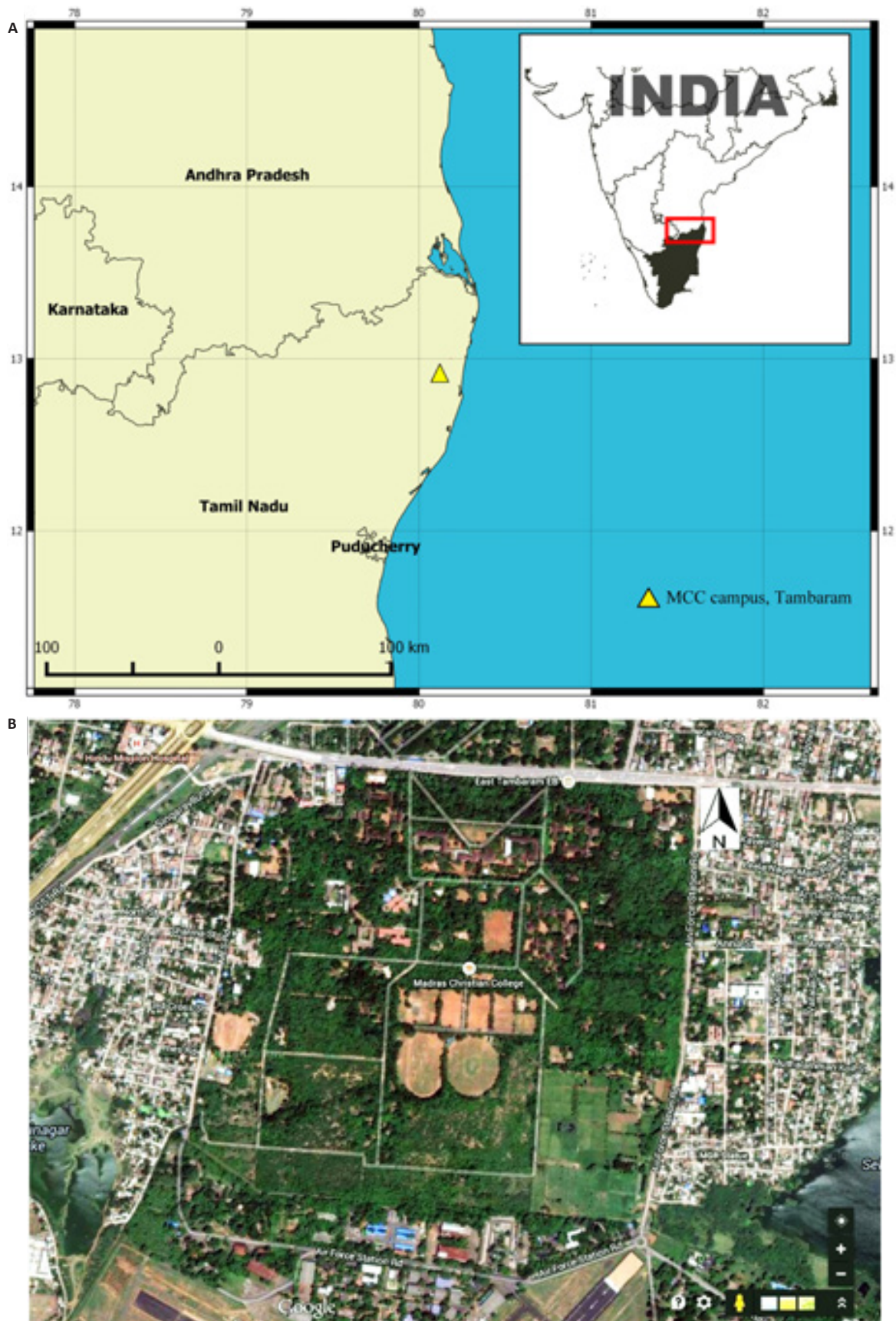
Cyrtarachne keralensis Jose, 2011: 322, figs. 1a–g.

Anepsion maritatum Malamel et al., 2015: 478, figs. 1A–O, 2A–I.

Specimens examined: MCC-ARA430, 1 male, 08.ii.2013; MCC-ARA478, 1 female, 21.ii.2013; MCC-ARA764, 1 female, 06.i.2014, MCC, coll. John Caleb T.D.

Global distribution: India, Sri Lanka, Thailand, Japan, and China to Indonesia (Sulawesi).

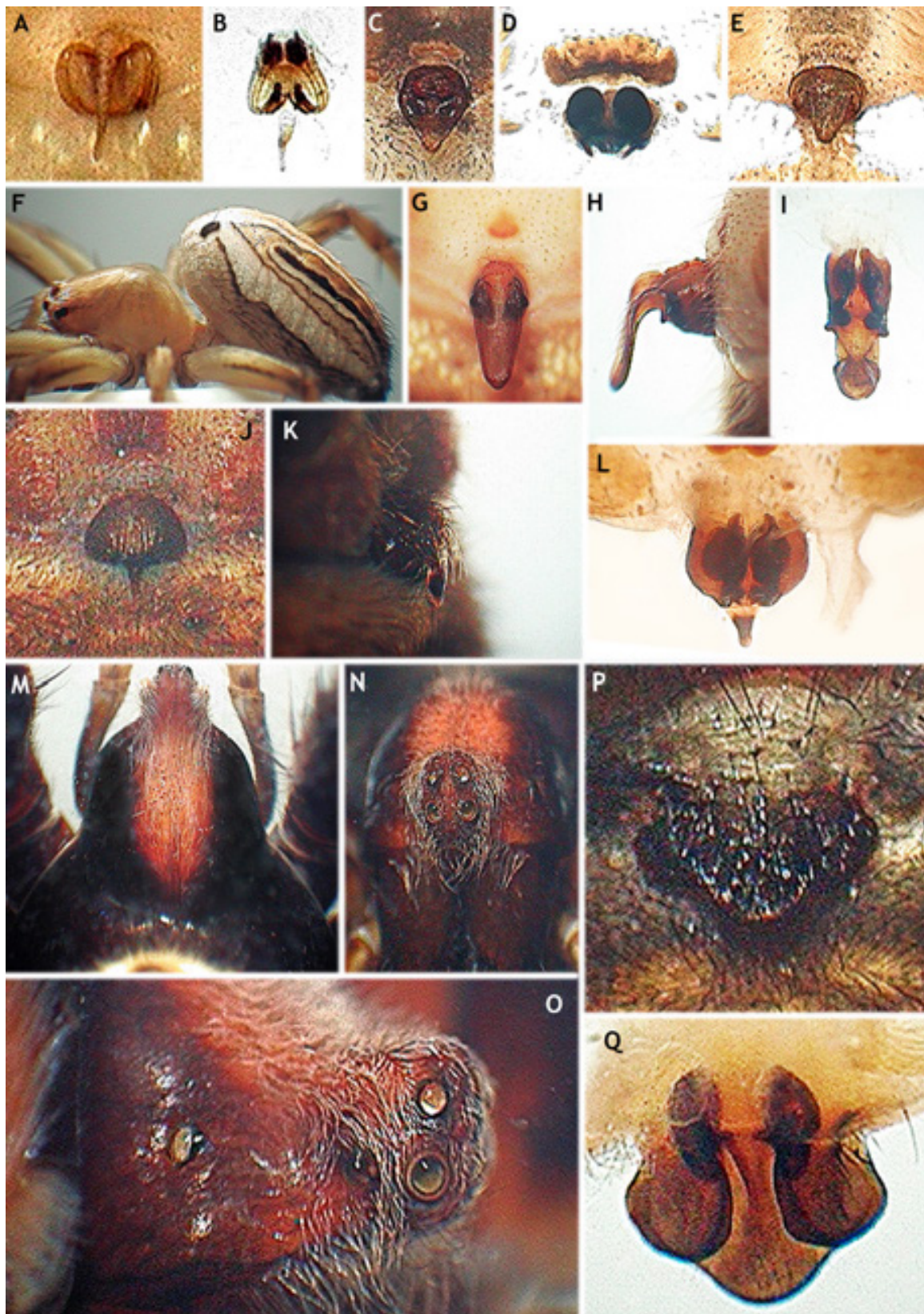
Distribution in India: Kerala and Tamil Nadu (new record).





Images 2A–H. A—wild vegetation along north end of the campus | B—thick vegetation along footpath at southern end of the campus | C—lake | D—farm and open grassland | E—vegetation behind Selaiyur hall | F—vegetation near farm house | G—cricket ground | H—thick canopy cover beside Heber hall. © John Caleb.

Genus *Araneus* Clerck***Araneus bilunifer* Pocock, 1900 (Image 24B)***Araneus bilunifer* Pocock, 1900: 227, fig. 74.*Araneus bilunifer* Patel, 1975: 162, figs. 3a–c.*Araneus bilunifer* Tikader & Bal, 1981: 43, figs. 91–94.*Araneus bilunifer* Tikader, 1982: 221, figs. 428–431.**Specimens examined:** None (known only from previous descriptions and photographic records).**Global distribution:** India.**Distribution in India:** Gujarat and Tamil Nadu.***Araneus viridisomus* Gravely, 1921 (Images 3A,B, 24C)***Araneus viridisoma* Gravely, 1921a: 415, fig. 3c.*Araneus viridisomus* Caleb & Mathai, 2014b: 3, figs. 1–9.*Araneus viridisomus* Patil & Uniyal, 2016: 172, figs. –111**Specimen examined:** NCBS-QA456, 1 female, 13.iii.2013, MCC, coll. John Caleb T.D.; NCBS-QA457, 1 female, 03.xii.2013, coll. John Caleb T.D.**Global distribution:** India.**Distribution in India:** Odisha, Maharashtra, and Tamil Nadu.**Genus *Argiope* Audouin*****Argiope aemula* (Walckenaer, 1841) (Image 24D)***Argiope aemula* Tikader, 1970: 29.*Argiope aemula* Gajbe, 2007: 512, figs. 269–272.*Argiope aemula* Sen et al., 2015: 111, figs. 642–646, pl. 21.*Argiope aemula* Roy, Saha & Raychaudhuri, 2017: 8, figs. 18–22, 169.**Specimens examined:** MCC-ARA101, 1 female, 06.iii.2012; MCC-ARA44, 1 female, 09.i.2011; MCC-ARA329, 1 female, 23.xi.2012, MCC, coll. John Caleb T.D.**Global distribution:** India to Philippines, Indonesia (Sulawesi), and Vanuatu.**Distribution in India:** Andaman & Nicobar Islands, Andhra Pradesh, Chhattisgarh, Gujarat, Kerala, Madhya Pradesh, Maharashtra, Tamil Nadu, and West Bengal.***Argiope anasuja* Thorell, 1887 (Image 24E)***Argiope anasuja* Gravely, 1921a: 412, fig. 3a.*Argiope anasuja* Tikader, 1982: 127, figs. 239–242.**Specimens examined:** MCC-ARA130, 1 female, 26.iii.2012; MCC-ARA304, 1 female, 08.xi.2012; MCC-ARA727, 1 female, 14.xii.2013, MCC, coll. John Caleb T.D.**Global distribution:** Seychelles, Maldives, Iran, Pakistan, India, Sri Lanka, and Australia (Cocos Is.).**Distribution in India:** Bihar, Karnataka, Madhya Pradesh, Maharashtra, Odisha, Tamil Nadu, and West Bengal.***Argiope pulchella* Thorell, 1881 (Images 24F, 32A)***Argiope pulchella* Gravely, 1921a: 412, fig. 3b.*Argiope pulchella* Tikader, 1970: 27, fig. 17a.*Argiope pulchella* Sen et al., 2015: 110, figs. 637–641, pl. 21.*Argiope pulchella* Roy, Saha & Raychaudhuri, 2017: 8, figs. 23–27, 170.**Specimens examined:** MCC-ARA88, 1 female, 14.ii.2012; MCC-ARA265, 1 female, 26.x.2012, MCC, coll. John Caleb T.D.**Global distribution:** India to China and Indonesia.**Distribution in India:** Andaman Islands, Arunachal Pradesh, Assam, Kerala, Lakshadweep Islands, Madhya Pradesh, Maharashtra, Manipur, Odisha, Tamil Nadu, and West Bengal.**Genus *Cyclosa* Menge*****Cyclosa confragata* (Thorell, 1892) (Image 24G)***Cyclosa confragata* Tikader, 1982: 193, figs. 372–376.*Cyclosa confragata* Gajbe, 2007: 519, figs. 287–291.*Cyclosa confragata* Keswani, 2013: 64, figs. 2A–F.*Cyclosa confragata* Sen et al., 2015: 116, figs. 709–714, pl. 22.**Specimens examined:** MCC-ARA273, 1 female, 02.xi.2012; MCC-ARA535–ARA536 1 female & 1 male, 25.iii.2013; MCC-ARA766, 1 male, 06.i.2014, MCC, coll. John Caleb T.D.**Global distribution:** India, Bangladesh to Malaysia.**Distribution in India:** Gujarat, Maharashtra, Karnataka, Assam, Sikkim, Madhya Pradesh, and Tamil Nadu (new record).***Cyclosa hexatuberculata* Tikader, 1982 (Images 24H, 32B)***Cyclosa hexatuberculata* Tikader, 1982: 197, figs. 382–387.*Cyclosa hexatuberculata* Sen et al., 2015: 115, figs. 688–694, pl. 22.*Cyclosa hexatuberculata* Roy, Saha & Raychaudhuri, 2017: 20, figs. 102–107, 186.*Cyclosa hexatuberculata* Dixit & Ade, 2017: 948, pl. 3A–I, 7A–I.**Specimens examined:** MCC-ARA102, 1 female, 06.iii.2012; MCC-ARA258, 1 female, 18.x.2012; MCC-ARA276, 1 female, 02.xi.2012; MCC-ARA765, 1 female, 06.i.2014, MCC, coll. John Caleb T.D.**Global distribution:** India and Pakistan**Distribution in India:** Maharashtra, Madhya Pradesh, Tamil Nadu (new record), and West Bengal.***Cyclosa neilensis* Tikader, 1977 (Image 24I)***Cyclosa neilensis* Tikader, 1977: 179, figs. 11A–D.*Cyclosa neilensis* Tikader, 1982: 199, figs. 388–393.*Cyclosa neilensis* Sen et al., 2015: 115, figs. 681–687,



Images 3A–O. A–B—*Araneus viridisomus* | C—*Eriovixia excelsa* | D—*Gasteracantha geminata* | E–F—*Neoscona molemensis* | G–I—*Neoscona vigilans* | J–L—*Parawixia dehaani* | M–Q—*Poltys nagpurensis*. A, C, E, G, J, P—epigynal scape, ventral view | B, D, I, L, Q—internal structures | H, K—epigynal scape, lateral view | M—carapace dorsal view | N—front view | O—cephalic region, lateral view. Images not to scale. © John Caleb



pl. 22.

Cyclosa neilensis Roy, Saha & Raychaudhuri, 2017: 20, figs. 108–114, 187.

Specimens examined: MCC-ARA272, 1 female, 02.xi.2012, MCC, coll. John Caleb T.D.

Global distribution: India.

Distribution in India: Andaman Islands, Meghalaya, Sikkim, Tamil Nadu (new record), and West Bengal.

Genus *Cyrtophora* Simon

Cyrtophora cicatrosa (Stoliczka, 1869) (Images 24J, 32D)

Epeira cicatrosa Stoliczka, 1869: 242, pl. 20, fig. 5

Araneus cicatrosa Pocock, 1900: 226.

Cyrtophora cicatrosa Tikader, 1982: 179, figs. 341–345.

Cyrtophora cicatrosa Gajbe, 2007: 516, figs. 278–282.

Cyrtophora cicatrosa Sen et al., 2015: 118, figs. 728–736, pl. 23.

Cyrtophora cicatrosa Roy, Saha & Raychaudhuri, 2017: 14, figs. 58–62, 178.

Cyrtophora cicatrosa Tyagi et al., 2019: Supplement, figs. S2.8, S3.23–24.

Specimens examined: MCC-ARA94, 1 female, 28.ii.2012; MCC-ARA133, 1 female, 26.iii.2012, MCC, coll. John Caleb T.D.

Global distribution: Pakistan to Australia (Northern Territory)

Distribution in India: Andaman & Nicobar Islands, Karnataka, Madhya Pradesh, Maharashtra, Punjab, Gujarat, Tamil Nadu, Uttar Pradesh, and West Bengal.

Genus *Eriovixia* Archer

Eriovixia excelsa (Simon, 1889) (Images 3C, 24K, 32E)

Neoscona excelsus Tikader & Bal, 1981: 25, figs. 50–54.

Araneus excelsus Tikader & Biswas, 1981: 20, figs. 16–18.

Neoscona excelsus Tikader, 1982: 261, figs. 520–524.

Eriovixia excelsa Sen et al., 2015: 120, figs. 754–758, pl. 23.

Eriovixia excelsa Roy, Saha & Raychaudhuri, 2017: 10, figs. 43–47, 174.

Specimens examined: MCC-ARA231, 1 female, 12.x.2012; MCC-ARA260, 1 female, 18.x.2012; MCC-ARA267, 1 male, 26.x.2012; MCC-ARA279, 1 male, 05.xi.2012; MCC-ARA305, 1 male, 08.xi.2012; MCC-ARA797, 1 female, 25.iv.2014, MCC, coll. John Caleb T.D.

Global distribution: India, Pakistan, China, Taiwan, Philippines, and Indonesia

Distribution in India: Maharashtra, Gujarat, Kerala, Bihar, Eastern Himalaya, Tamil Nadu, and West Bengal.

Eriovixia laglaizei (Simon, 1877) (Images 24L, M)

Neoscona laglaizei Tikader & Bal, 1981: 27, figs. 55–58.

Neoscona laglaizei Tikader, 1982: 263, figs. 525–528.

Eriovixia laglaizei Sen et al., 2015: 120, figs. 748–753, pl. 23.

Specimens examined: MCC-ARA92, 1 female, 24.ii.2012; MCC-ARA425, 1 male, 29.i.2013; MCC-ARA521, 1 male, 21.iii.2013, MCC, coll. John Caleb T.D.

Global distribution: India, Bangladesh, China to Philippines, and New Guinea.

Distribution in India: Madhya Pradesh and Tamil Nadu.

Genus *Gasteracantha* Sundevall

Gasteracantha geminata (Fabricius, 1798) (Images 3D, 24N)

Gasteracantha geminata Pocock, 1900: 233, figs. 79.

Gasteracantha geminata Tikader, 1982: 53, figs. 107–110.

Gasteracantha geminata Sankaran, Jobi & Sebastian, 2015: 147, figs. 1A–F, 2A–F.

Specimens examined: MCC-ARA86, 1 female, 14.ii.2012; MCC-ARA107, 1 female, 06.iii.2012; MCC-ARA169, 1 female, 30.vii.2012; MCC-ARA312, 1 female, 14.xi.2012, MCC, coll. John Caleb T.D.

Global distribution: India and Sri Lanka.

Distribution in India: Karnataka, Kerala, and Tamil Nadu.

Genus *Larinia* Simon

Larinia chloris (Audouin, 1826) (Image 24O)

Larinia chloris Tikader, 1982: 206, figs. 404–407.

Larinia chloris Gajbe, 2007: 521, figs. 296–298.

Specimens examined: MCC-ARA269, 1 male, 26.x.2012; MCC-ARA538, 1 female, 25.iii.2013; MCC-ARA793, 1 female, 22.iv.2014, MCC, coll. John Caleb T.D.

Global distribution: Northern and eastern Africa to Israel, Turkey, Iran, India, Sri Lanka, and Bangladesh.

Distribution in India: Maharashtra, Madhya Pradesh, and Tamil Nadu (new record).

Genus *Neoscona* Simon

Neoscona molemensis Tikader & Bal, 1981 (Images 3E–F, 25A)

Neoscona molemensis Tikader & Bal, 1981: 22, figs. 40–44.

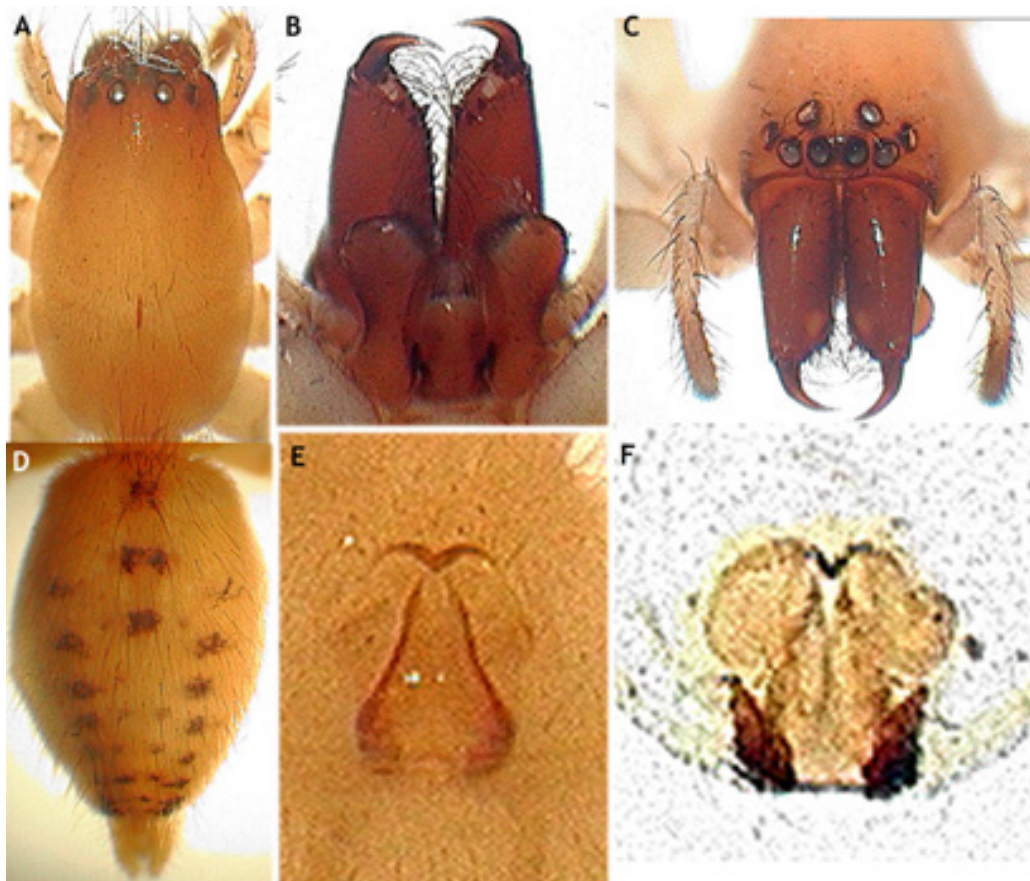
Neoscona molemensis Tikader, 1982: 257, figs. 510–514.

Neoscona molemensis Barrion & Litsinger, 1995: 627, figs. 396a–e.

Specimens examined: MCC-ARA464–ARA465, 2 females, 14.ii.2013, MCC, coll. John Caleb T.D.

Global distribution: Bangladesh, India to Philippines, and Indonesia

Distribution in India: Goa, Madhya Pradesh and Tamil



Images 4A–F—*Clubiona filicata*. A—carapace, dorsal view | B—chelicerae, ventral view | C—carapace, front view | D—abdomen, dorsal view | E—epigyne, ventral view | F—vulva, dorsal view. Images not to scale. © John Caleb

Nadu (new record).

***Neoscona muketjei* Tikader, 1980 (Image 25B)**

Neoscona muketjei Tikader, 1980b: 247, figs. 1–23.

Neoscona muketjei Gajbe, 2007: 528, figs. 312–316.

Neoscona muketjei Sen et al., 2015: 125, figs. 805–810, pl. 24.

Neoscona mukharji Ade & Dixit, 2016: 730, figs. 4a–i.

Specimens examined: MCC-ARA332, 1 female, 03.xii.2012, MCC, coll. John Caleb T.D.

Global distribution: India, Pakistan, and Bangladesh

Distribution in India: Andhra Pradesh, Arunachal Pradesh, Kerala, Madhya Pradesh, Maharashtra, Manipur, Tamil Nadu (new record), and West Bengal.

***Neoscona vigilans* (Blackwall, 1865) (Images 3G–I, 25C)**

Araneus rumpfi Pocock, 1900: 228.

Neoscona rumpfi Tikader & Bal, 1981: 18, figs. 31–35.

Neoscona rumpfi Gajbe, 2007: 529, figs. 317–321.

Neoscona rumpfi Sen et al., 2015: 126, figs. 811–816, pl. 24.

Specimens examined: MCC-ARA198, 1 female,

10.x.2012; MCC-ARA235, 1 female, 16.x.2012; MCC-ARA290, 1 female, 06.xi.2012; MCC-ARA325–ARA326, 1 female & 1 male, 23.xi.2012; MCC-ARA459, 1 female, 13.ii.2013; MCC-ARA482, 1 female, 21.ii.2013, MCC, coll. John Caleb T.D.

Global distribution: Africa and Asia (without Russia).

Distribution in India: Andhra Pradesh, Karnataka, Kerala Madhya Pradesh, Maharashtra, Odisha, Tamil Nadu, and West Bengal.

Genus *Parawixia* F.O.P. Cambridge

***Parawixia dehaani* (Doleschall, 1859) (Images 3J–L, 25D, 32F)**

Araneus dehaani Pocock, 1900: 225, fig. 72.

Parawixia dehaanii Tikader, 1982: 212, figs. 414–418.

Parawixia dehaani Sen et al., 2015: 119, figs. 743–747, pl. 23.

Parawixia dehaani Roy, Saha & Raychaudhuri, 2017: 22, figs. 127–131, 190.

Specimens examined: MCC-ARA96, 1 female, 28.ii.2012; MCC-ARA98, 1 female, 29.ii.2012; MCC-ARA129, 1 female, 26.iii.2012, MCC, coll. John Caleb T.D.

Global distribution: India to Philippines, Indonesia, and New Guinea.

Distribution in India: Karnataka, Kerala, Sikkim, Tamil Nadu (new record) and West Bengal.

Genus *Polrys* C.L. Koch

Polrys nagpurensis Tikader, 1982 (Images 3M–Q, 25E)

Polrys nagpurensis Tikader, 1982: 169, figs. 321–325.

Polrys illepidus Keswani, 2015: 8, figs. 1–4.

Polrys illepidus Rajoria, 2015: 6, figs. 1–7.

Polrys nagpurensis Zamani et al., 2019: 4, figs. 1a–f, 2a–g, 3a–h.

Specimens examined: MCC-ARA503, 1 female, 06.iii.2013, MCC, coll. John Caleb T.D.

Global distribution: Iran and India.

Distribution in India: Maharashtra and Tamil Nadu (new record).

Family Cheiracanthiidae Wagner

Genus *Cheiracanthium* C.L. Koch

Cheiracanthium sp. (Image 25F)

Specimens examined: MCC-ARA28, 1 female, 20.vii.2010; MCC-ARA108, 1 female, 15.iii.2012; MCC-ARA259, 1 male 18.x.2012; MCC-ARA306–ARA307, 1 female & 1 male, 08.xi.2012; MCC-ARA467, 1 female, 14.ii.2013, MCC, coll. John Caleb T.D.

Distribution in India: Tamil Nadu.

Family Clubionidae Wagner

Genus *Clubiona* Latreille

Clubiona filicata O. Pickard-Cambridge, 1874 (Images 4A–F, 25G)

Clubiona filicata O. Pickard-Cambridge, 1874: 413, pl. 52, fig. 35.

Clubiona filicata Gravely, 1931: 261, fig. 16D.

Clubiona pashabhaii Patel & Patel, 1973: 2, figs. 1a–c. Syn. nov.

Clubiona filicata Tikader & Biswas, 1981: 69, figs. 120–121.

Clubiona filicata Majumder & Tikader, 1991: 23, figs. 30–35.

Clubiona filicata Dankittipakul et al., 2012: 59, figs. 25–31.

Clubiona foliata Keswani & Vankhede, 2014: 36, figs. 1–13. Syn. nov.

Specimens examined: MCC-ARA318, 1 female, 15.xi.2012; MCC-ARA537, 1 female, 25.iii.2013, MCC, coll. John Caleb T.D.

Global distribution: India, Bangladesh, Pakistan, Thailand, Myanmar, Laos, and China.

Distribution in India: Gujarat, Madhya Pradesh, Maharashtra, Rajasthan, Tamil Nadu (new record), and West Bengal.

Remarks: *Clubiona foliata* Keswani & Vankhede, 2014 was described based on a holotype female, an allotype male and six paratypes from Vidarbha, Maharashtra, India. The type material could not be studied; however, the illustrations are of good quality and sufficient for comparison. The epigyne matches unambiguously with that of *C. filicata* (cf. figs 1–6 in Keswani & Vankhede (2014) with figs 29–31 in Dankittipakul et al. (2012) and Images 4A–F herein) and no significant differences could be found in the male palp except that it is in an expanded state and has rotated clockwise (cf. figs 12–13 in Keswani & Vankhede (2014) with figs 25–28 in Dankittipakul et al. (2012).

Another species, *Clubiona pashabhaii* Patel & Patel, 1973 was described based on a holotype female and a paratype female from Vallabh Vidhyanagar, Gujarat. The original illustrations of the species show the abdominal pattern and characteristic epigynal morphology which match with that of *C. filicata* (cf. figs 1a,b in Patel & Patel (1973) with figs 29–31 in Dankittipakul et al. (2012) and Images 4D, E herein).

C. filicata was originally described from Bombay (Mumbai) (O.P.-Cambridge, 1874) and was later recorded from other locations from southeastern Asia. Based on the observations mentioned above and considering their proximity to the type locality of *C. filicata*, both *C. foliata* Keswani & Vankhede, 2014 and *C. pashabhaii* Patel & Patel, 1973 are to be considered junior synonyms of *C. filicata*.

Family Corinnidae Karsch

Genus *Aetius* O. Pickard-Cambridge

Aetius decollatus O. Pickard-Cambridge, 1897 (Images 5A–F, 25H)

Aetius decollatus O. Pickard-Cambridge, 1897: 1077, pl. 52, fig. 1.

Aetius decollatus Reimoser, 1934: 491.

Aetius decollatus Majumder & Tikader, 1991: 161, figs. 338–342.

Aetius decollatus Deeleman-Reinhold, 2001: 336, figs. 496–501.

Aetius decollatus Sudhin et al., 2016: 490, figs. 1–8.

Aetius decollatus Caleb & Mathai, 2016b: 36, figs. 1–20.

Specimens examined: SRC-ZSI I/SP 21, 1 male, 11.x.2012; SRC-ZSI I/SP 22, 1 female, 18.iii.2013, MCC, coll. John Caleb T.D.

Global distribution: India and Sri Lanka.

Distribution in India: Kerala and Tamil Nadu.

Genus *Cambalida* Simon

Cambalida flavipes (Gravely, 1931) (Images 6A–F, 25I)

Castianeira flavipes Gravely, 1931: 275, figs. 20D–E.

Castianeira flavipes Tikader, 1981: 260, figs. 5–8.

Castianeira flavipes Majumder & Tikader, 1991: 135, figs. 276–281.

Castianeira flavipes Sen et al., 2015: 71, figs. 386–393, pl. 18.

Cambalida flavipes Murthappa et al., 2016: 533.

Cambalida flavipes Dhali, Saha & Raychaudhuri, 2017: 53, figs. 201–208, pl. 20.

Specimens examined: MCC-ARA39, 1 female, 30.vii.2010; MCC-ARA280, 1 female, 05.xi.2012; MCC-ARA324, 1 female, 23.xi.2012; MCC-ARA424, 1 female, 29.i.2013; MCC-ARA714, 1 female, 03.xii.2013, MCC, coll. John Caleb T.D.

Global distribution: India.

Distribution in India: Karnataka, Odisha, and Tamil Nadu.

Genus *Coenoptychus* Simon

Coenoptychus pulcher Simon, 1885 (Images 5G–L, 25J)

Coenoptychus pulcher Simon, 1885a: 37.

Coenoptychus pulcher Gravely, 1931: 276, figs. 20G.

Coenoptychus pulcher Majumder & Tikader, 1991: 145, figs. 306–310.

Coenoptychus pulcher Deeleman-Reinhold, 2001: 329, figs. 486–488.

Coenoptychus pulcher Paul et al., 2018: 165, figs. 1A–D, 2A–H, 3A–F, 4A–C, F–K.

Specimens examined: MCC-ARA470, 1 female, 14.ii.2013; MCC-ARA505, 1 female, 11.iii.2013; MCC-ARA606–ARA607, 1 female & 1 male, 18.vii.2013, MCC, coll. John Caleb T.D.

Global distribution: India and Sri Lanka.

Distribution in India: Kerala and Tamil Nadu.

Genus *Corinnomma* Karsch

Corinnomma severum (Thorell, 1877) (Images 6G–J, 25K)

Castaneira himalayensis Gravely, 1931: 275, fig. 20C.

Corinnomma harmandi Gravely, 1931: 276, fig. 20F.

Castianeira himalayensis Tikader & Biswas, 1981: 72, figs. 127–128.

Castianeira himalayensis Tikader, 1981: 265, figs. 14–16.

Castianeira himalayensis Majumder & Tikader, 1991: 137, figs. 282–286.

Castianeira himalayensis Sen et al., 2015: 71, figs. 394–398, pl. 18.

Castianeira himalayensis Dhali, Saha & Raychaudhuri, 2017: 55, figs. 219–223, pl. 20.

Corinnomma severum Sankaran, Caleb & Sebastian, 2019: 334, figs. 2A–C, E.

Specimens examined: MCC-ARA685, 1 female, 05.xi.2013; MCC-ARA308, 1 female, 08.xi.2012; MCC-ARA85, 1 female, 02.ii.2012; MCC-ARA113, 1 female, 21.iii.2012; MCC-ARA740, 1 male, 16.xii.2013, MCC, coll.

John Caleb T.D.

Global distribution: India to China, Philippines, and Indonesia (Sumatra, Sulawesi).

Distribution in India: Tamil Nadu (new record) and West Bengal.

Family Deinopidae C.L. Koch

Genus *Asianopsis* Lin & Li

Asianopsis liukensis (Yin, Griswold & Yan, 2002) (Images 25L, M, 32H)

Deinopsis scrubjunglei Caleb & Mathai, 2014a: 2, figs. 1–20.

Asianopsis liukensis Lin et al., 2020: 74, figs 2B, E, F, I, 4–8, 19, 21A, 22A, G, 23.

Specimen examined: Types of *D. scrubjunglei*: SRC-ZSI I/SP 19, Holotype male, MCC, 5.xii.2013, coll. John Caleb T.D.; SRC-ZSI I/SP 20, paratype female, 22.iv.2014, MCC, coll. John Caleb T.D. and Karthy.

Global distribution: India and China.

Distribution in India: Tamil Nadu.

Family Eresidae C.L. Koch

Genus *Stegodyphus* Simon

Stegodyphus sarasinorum Karsch, 1891 (Images 25N, 33A)

Stegodyphus sarasinorum Pocock, 1900: 209, fig. 65.

Stegodyphus sarasinorum Bradoo, 1975: 239, figs. 9, 11.

Stegodyphus sarasinorum Tikader & Biswas, 1981: 15, figs. 5–7.

Stegodyphus sarasinorum Kraus & Kraus, 1989: 204, figs. 21–27, 103, 110, 117, 120, 125, 139–141.

Stegodyphus sarasinorum Gajbe, 2007: 428, figs. 16–19.

Specimens examined: MCC-ARA319, 1 female, 15.xi.2012; MCC, coll. John Caleb T.D.

Global distribution: India, Sri Lanka, Nepal, and Myanmar.

Distribution in India: Kerala, Karnataka, Maharashtra, Odisha, Punjab, Madhya Pradesh, West Bengal, Tamil Nadu, Uttar Pradesh, and northwestern Himalaya.

Stegodyphus tibialis (O. Pickard-Cambridge, 1869) (Images 7A–G, 25O)

Stegodyphus socialis Pocock, 1900: 209.

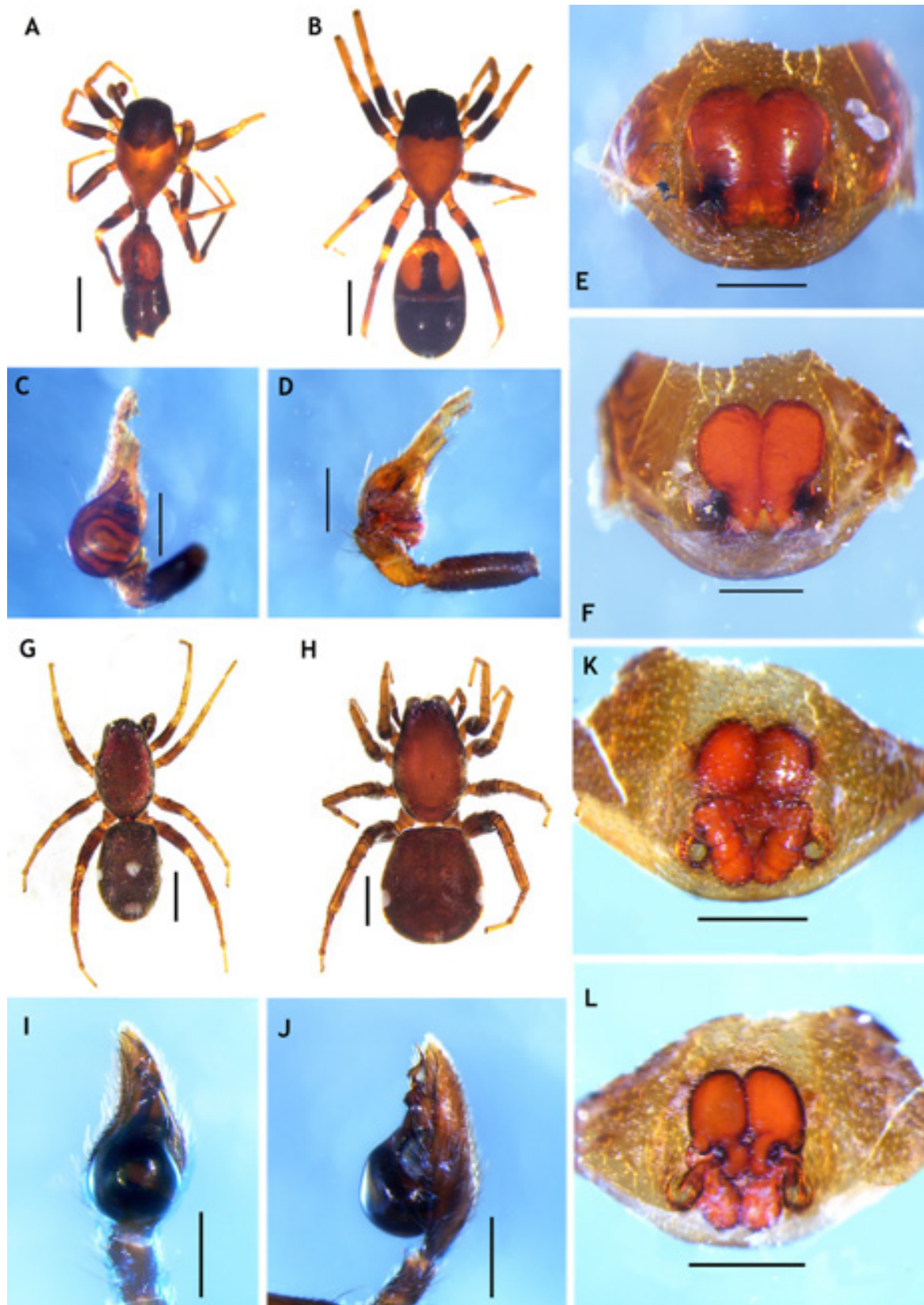
Stegodyphus tibialis Phanuel, 1963: 305, figs. 1–9.

Stegodyphus tibialis Kraus & Kraus, 1989: 226, figs. 199, 208, 218–223.

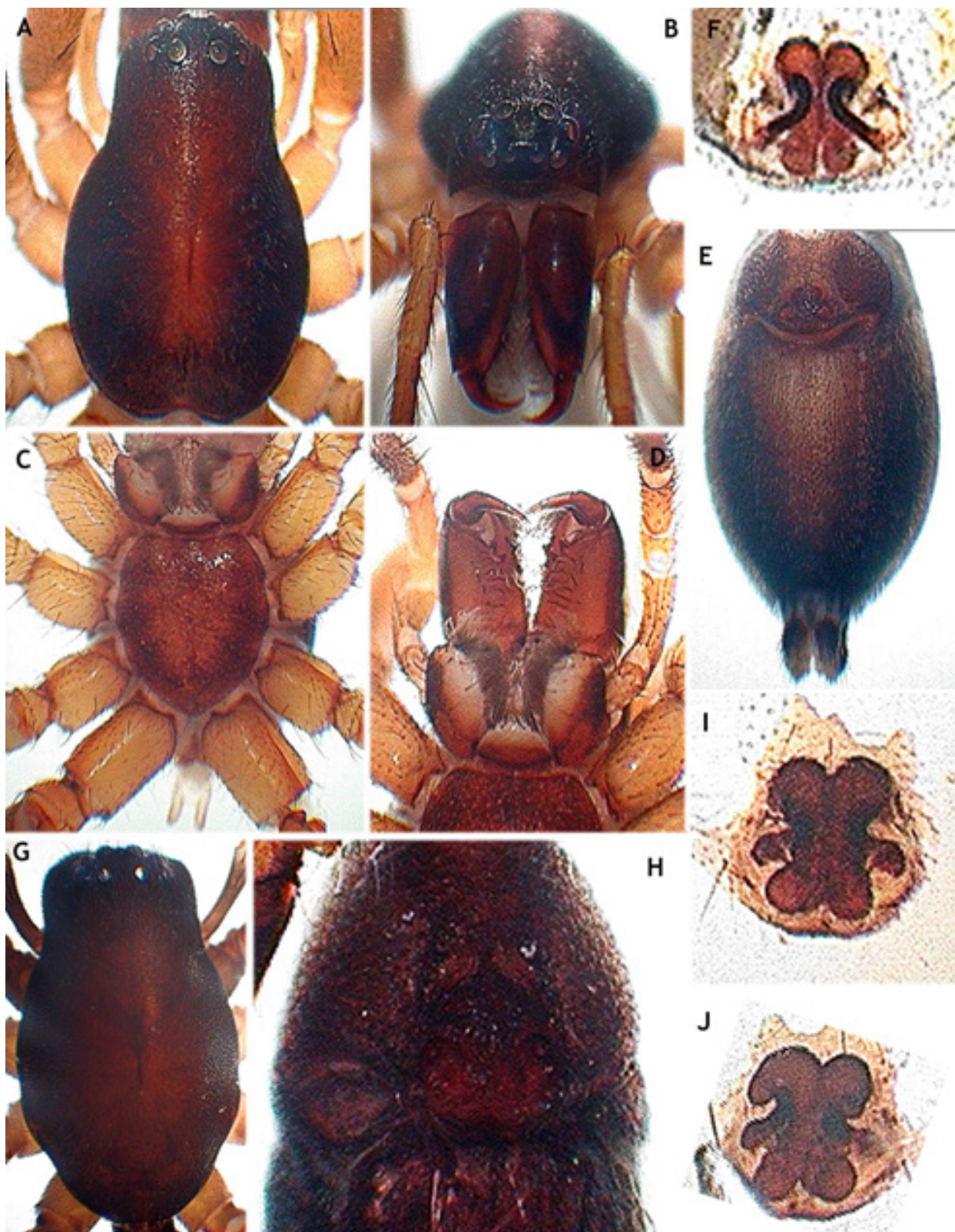
Stegodyphus tibialis Gunti, Srinivasulu & Devender, 2016: 1, fig. 1.

Stegodyphus tibialis El-Hennawy, 2016: 33, figs. 1–10.

Specimens examined: MCC-ARA283, 1 female, 05.xi.2012, MCC, coll. John Caleb T.D.



Images 5A–F—*Aetius decollatus*. A—dorsal view, male | B—same, female | C—right palp with broken embolic tip and damaged cymbium, ventral view (image flipped) | D—same, retrolateral view | E—epigyne, ventral view | F—vulva, dorsal view. G–L—*Coenoptychus pulcher*. G—dorsal view, male | H—same, female | I—left palp, ventral view | J—same, retrolateral view | K—epigyne, ventral view | L—vulva, dorsal view. Scale bars: A–B—2mm | G–H—1mm | C–F, I–L—0.5mm. © John Caleb



Images 6A–F. *Cambalida flavipes*. A—carapace, dorsal view | B—front view | C—sternum | D—chelicerae, labium and endites | E—abdomen, ventral view | F—vulva, dorsal view. G–J—*Corinnomma severum*. G—carapace, dorsal view | H—abdomen showing epigynal field, ventral view | I—epigyne, ventral view | J—vulva, dorsal view. Images not to scale. © John Caleb

Global distribution: India, Myanmar, Thailand, and China.

Distribution in India: Karnataka, Maharashtra, Madhya Pradesh, and Tamil Nadu.

Family Gnaphosidae Pocock

Genus *Poecilochroa* Westring

Poecilochroa tridotus Caleb & Mathai, 2013 (Image 26A)

Poecilochroa tridotus Caleb & Mathai, 2013: 2, figs. 1a–f.

Specimens examined: SRC-ZSI I/SP 17, holotype female, MCC, 18.iii.2013, coll. John Caleb T.D.

Global distribution: India.

Distribution in India: Tamil Nadu.

Genus *Zelotes* Gistel

Zelotes tambaramensis Caleb & Mathai, 2013 (Images 26B)

Zelotes tambaramensis Caleb & Mathai, 2013: 5, figs. 2a–f.

Specimens examined: SRC-ZSI I/SP 18, holotype female, MCC, 11.iii.2013, coll. John Caleb T.D.

Global distribution: India.

Distribution in India: Tamil Nadu.

Family Hersiliidae Thorell

Genus *Hersilia* Audouin

Hersilia savignyi Lucas, 1836 (Images 8A–E, 26C)

Hersilia calcuttensis Stoliczka, 1869: 216, pl. 20, fig. 9.

Hersilia savignyi Simon, 1885a: 19, pl. 10, figs. 18–19.

Hersilia savignyi Pocock, 1900: 241, fig. 82.

Hersilia savignyi Gravely, 1922: 1050, pl. 5, fig. 13.

Hersilia savignyi Tikader & Biswas, 1981: 47, figs. 74–76.

Hersilia savignyi Baehr & Baehr, 1993: 29, figs. 5, 22a–f.

Hersilia savignyi Gajbe, 2007: 434, figs. 26–30.

Hersilia aadi Pravalikha, Srinivasulu & Srinivasulu, 2014: 5554, images 1a–j, 2, 3a–f, figs. 1a–c.

Hersilia savignyi Caleb et al., 2017: 396, figs. 1–3.

Hersilia savignyi Tyagi et al., 2019: Supplement, figs. S2.23, S3.25.

Specimens examined: MCC-ARA199, 1 male, 10.x.2012; MCC-ARA277–ARA278, 1 female & 1 male, 02.xi.2012; MCC-ARA659, 1 female, 18.x.2013, MCC, coll. John Caleb T.D.

Global distribution: Sri Lanka and India to Philippines.

Distribution in India: Assam, Bihar, Odisha, Kerala, Karnataka, Madhya Pradesh, Maharashtra, Tamil Nadu, Uttar Pradesh, and West Bengal.

Hersilia tibialis Baehr & Baehr, 1993 (Images 8F–H, 26D)

Hersilia pectinata Sinha, 1951b: 123, fig. 2.

Hersilia tibialis Baehr & Baehr, 1993: 51, figs. 7, 34a–f.

Specimens examined: MCC-ARA42, 1 female, 30.x.2010; MCC-ARA200, 1 female, 10.x.2012; MCC-ARA274–ARA275, 2 females, 02.xi.2012, MCC, coll. John Caleb T.D.

Global distribution: India and Sri Lanka.

Distribution in India: Kerala and Tamil Nadu.

Family Idiopidae Simon

Genus *Idiops* Perty

Idiops constructor (Pocock, 1900) (Images 9A–G, 26E, F)

Acanthodon constructor Pocock, 1900: 163.

Titanidiops constructor Simon, 1903: 890.

Idiops constructor Schwendinger, 1991: 240, figs. 14, 16, 19.

Specimens examined: WILD-13-ARA-1235, 1 male, 13.v.2010, MCC, coll. Sam Thomas; WILD-13-ARA-1234, 1 female, 29.i.2013, MCC, coll. John Caleb T.D.

Global distribution: India.

Distribution in India: Tamil Nadu.

Family Liocranidae Simon

Genus *Oedignatha* Thorell

Oedignatha scrobiculata Thorell, 1881 (Images 10A–F, 26G)

Oedignatha scrobiculata Gravely, 1931: 268, figs. 18C–D.

Castianeira bengalensis Biswas, 1984: 120, figs. 4–6.

Castianeira bengalensis Majumder & Tikader, 1991: 141, figs. 297–301.

Oedignatha scrobiculata Majumder & Tikader, 1991: 116, figs. 240–245.

Oedignatha scrobiculata Sankaran, Caleb & Sebastian, 2019: 338, figs. 5A–E,H.

Specimens examined: MCC-ARA517, 1 female, 18.iii.2013; MCC-ARA574, 1 male, 10.vi.2013, MCC, coll. John Caleb T.D.

Global distribution: Seychelles, Reunion, India, Thailand, Malaysia, Philippines, Indonesia, and Taiwan. Introduced to Germany.

Distribution in India: Maharashtra, Odisha, Tamil Nadu, and West Bengal.

Family Lycosidae Sundevall

Genus *Draposa* Kronstedt

Draposa atropalpis (Gravely, 1924) (Image 26H)

Pardosa atropalpis Gravely, 1924: 610, fig. 5B.

Pardosa atropalpis Tikader & Malhotra, 1980: 325, figs. 153–156.

Draposa atropalpis Kronstedt, 2010: 34, figs. 1–2, 8–9, 12–14, 19–20, 23, 29.

Specimens examined: MCC-ARA194, 1 male, 09.x.2012; MCC-ARA690, 1 female, 23.xi.2013; MCC-



Images 7A–G. *Stegodyphus tibialis*. A—carapace, lateral view | B—labium and endites | C—sternum | D—chelicerae, ventral view | E—spinnerets, posterior view | F—epigyne, ventral view | G—vulva, dorsal view. Images not to scale. © John Caleb

ARA542–ARA543, 1 male & 1 female, 25.iii.2013; MCC-ARA712–ARA713, 1 male & 1 female, 03.xii.2013; MCC-ARA504, 1 female, 6.iii.2013; MCC-ARA575, 1 female, 10.vi.2013; MCC-ARA588, 1 male, 21.vi.2013, MCC, coll. John Caleb T.D & Soreiphy Mungkung.

Global distribution: India and Sri Lanka.

Distribution in India: Andhra Pradesh, Bihar, Karnataka, Kerala, Odisha, Tamil Nadu and West Bengal.

Genus *Hippasa* Simon

Hippasa greenalliae (Blackwall, 1867) (Images 11A–G, 26I, 33B)

Lycosa greenalliae Blackwall, 1867: 387.

Hippasa greenalliae Simon, 1885a: 31, pl. 10, fig. 6.

Hippasa pantherina Pocock, 1899: 752.

Hippasa pantherina Pocock, 1900: 250.

Hippasa pantherina Gravely, 1924: 594, fig. 1F.

Hippasa greenalliae Tikader & Malhotra, 1980: 277, figs. 72–76.

Hippasa greenalliae Sen et al., 2015: 47, figs. 188–192, pl. 14.

Hippasa greenalliae Dhali, Saha & Raychaudhuri, 2017: 69, figs. 317–321, pl. 23.

Specimens examined: MCC-ARA132, 1 female, 26.iii.2012; MCC-ARA266, 1 female, 26.x.2012; MCC-ARA463, 1 female, 13.ii.2013; MCC-ARA507, 1 female, 11.iii.2013, MCC, coll. John Caleb T.D.

Global distribution: India, Bangladesh, and Sri Lanka.

Distribution in India: Karnataka, Kerala, Madhya Pradesh, Maharashtra, Odisha, Gujarat, Sikkim, Tamil Nadu, and West Bengal.

Hippasa madraspatana Gravely, 1924 (Images 11H–L, 26J)

Hippasa madraspatana Gravely, 1924: 595, figs. 1J.

Hippasa madraspatana Tikader & Malhotra, 1980: 289, figs. 93–96.

Hippasa madraspatana Sen et al., 2015: 46, figs. 177–182, pl. 14.

Hippasa madraspatana Dhali, Saha & Raychaudhuri, 2017: 68, figs. 306–311, pl. 23.

Specimens examined: MCC-ARA197, 1 female, 9.x.2012; MCC-ARA366, 1 male, 12.xii.2012; MCC-ARA466, 1 female, 14.ii.2013; MCC-ARA506, 1 female, 11.iii.2013; MCC-ARA610, 1 male, 18.vii.2013; MCC-ARA717, 1 female, 3.xii.2013, MCC, coll. John Caleb T.D. & Soreiphy Mungkung.

Global distribution: India.

Distribution in India: Gujarat, Tamil Nadu, and West Bengal.

Genus *Lycosa* Latreille

Lycosa bistrata Gravely, 1924 (Image 26K)

Lycosa bistrata Gravely, 1924: 600.

Lycosa bistrata Sinha, 1951a: 21.

Lycosa bistrata Tikader & Malhotra, 1980: 385, figs. 261–263.

Lycosa bistrata Buchar, 1997: 26, figs. 29.

Lycosa bistrata Gajbe, 2007: 506, figs. 257–259.

Lycosa bistrata Sen et al., 2015: 53, figs. 264–268, pl. 16.

Lycosa bistrata Dhali, Saha & Raychaudhuri, 2017: 83, figs. 443–447, pl. 24.

Specimens examined: MCC-ARA316, 1 male, 14.xi.2012; MCC-ARA547, 1 female, 25.iii.2013; MCC-ARA720–ARA721, 1 female & 1 male, 5.xii.2013, MCC, coll. John Caleb T.D. & Soreiphy Mungkung.

Global distribution: India and Bhutan.

Distribution in India: Madhya Pradesh, Tamil Nadu and West Bengal.

Lycosa indagatrix Walckenaer, 1837 (Image 26L)

Lycosa catula Simon, 1885b: 459, pl. 10, fig. 4.

Lycosa indagatrix Gravely, 1924: 599, figs. 2A, 3A.

Hogna catula Reimoser, 1934: 471, fig. 4.

Lycosa catula Sinha, 1951a: 20, f.

Lycosa indagatrix Tikader & Malhotra, 1980: 411, figs. 306–310.

Lycosa indagatrix Dhali, Saha & Raychaudhuri, 2017: 80, figs. 404–409, pl. 24.

Specimens examined: MCC-ARA646–ARA647, 2 females, 12.viii.2013, MCC, coll. John Caleb T.D.

Global distribution: India and Sri Lanka.

Distribution in India: Andhra Pradesh and Tamil Nadu.

Genus *Wadicosa* Zyuzin

Wadicosa fidelis (O. Pickard-Cambridge, 1872) (Image 26M)

Lycosa fidelis O. Pickard-Cambridge, 1872: 319.

Lycosa birmanica Gravely, 1924: 607, fig. 4J.

Pardosa bhatnagari Sadana, 1971: 226, figs. 1–4.

Pardosa birmanica Buchar, 1976: 206, fig. 4H.

Pardosa birmanica Tikader & Malhotra, 1980: 329, figs. 163–167.

Pardosa birmanica Tikader & Biswas, 1981: 52, figs. 82–83.

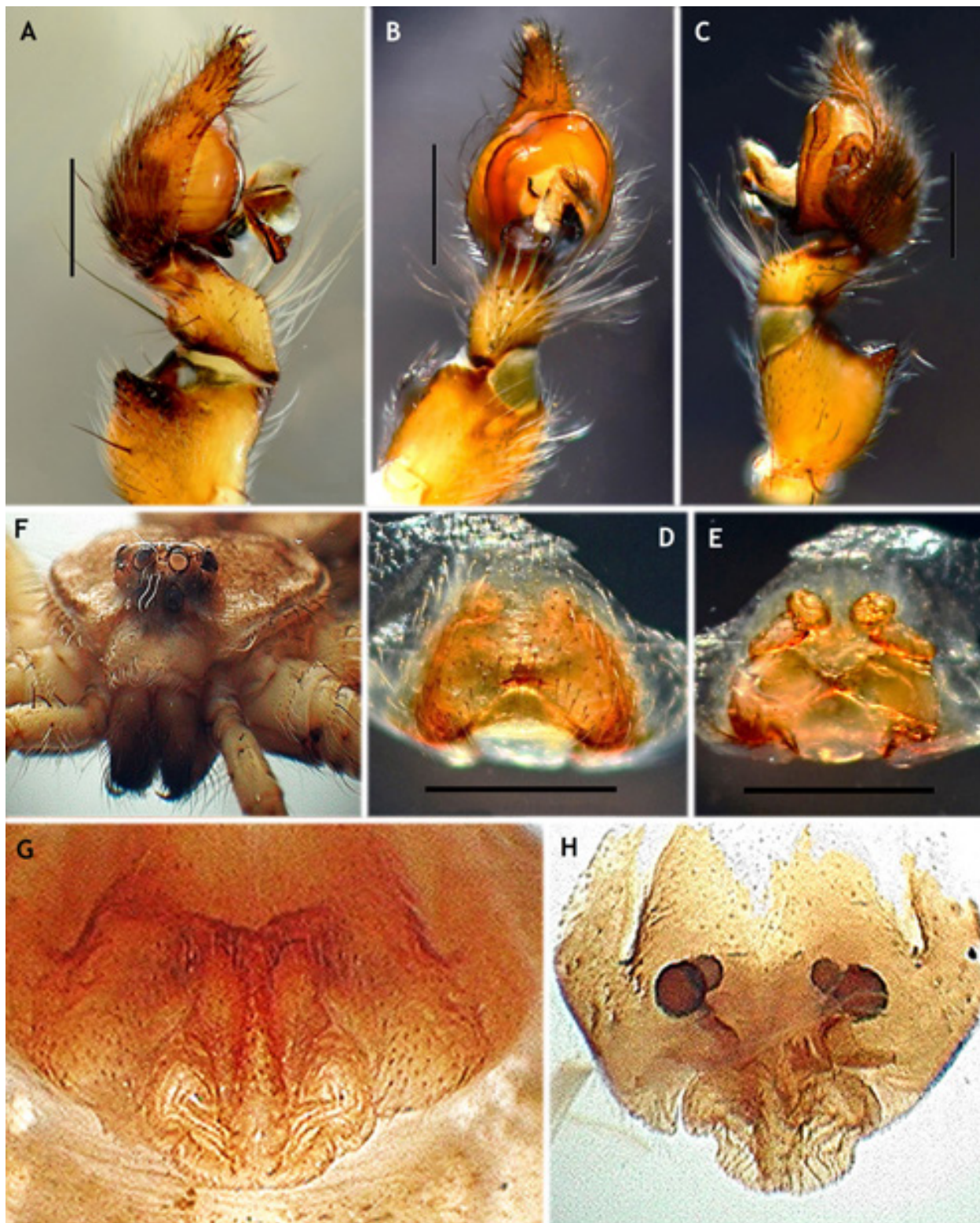
Pardosa birmanica Gajbe, 2007: 499, figs. 235–239.

Pardosa birmanica Sen et al., 2015: 50, figs. 224–228, pl. 15.

Wadicosa fidelis Lu et al., 2016: 137, figs. 9A–H, 10A–D, 11A–D, 12E–F.

Pardosa birmanica Dhali, Saha & Raychaudhuri, 2017: 74, figs. 353–357, pl. 25.

Specimens examined: MCC-ARA837, 2 females,



Images 8A–E. *Hersilia savyngyi*. A—left palp, prolateral view | B—same, ventral view | C—same, retrolateral view; D—epigyne, ventral view | E—vulva, dorsal view. F–H. *Hersilia tibialis*. F—Carapace, front view | G—epigyne, ventral view | H—vulva, dorsal view. Scale bars: A–E—0.5mm. © John Caleb

27.ix.2014; MCC-ARA858–ARA860, 1 male & 2 females, 4.x.2014, MCC, coll. John Caleb T.D. & Soreiphy Mungkung.

Global distribution: Macaronesia, northern Africa, southern Europe, Caucasus, Middle East, central Asia, China, Japan, Pakistan, India, Bangladesh, Philippines, and Indonesia (Sumatra).

Distribution in India: Andhra Pradesh, Assam, Bihar, Gujarat, Himachal Pradesh, Jharkhand, Madhya Pradesh, Maharashtra, Meghalaya, Odisha, Punjab, Rajasthan, Tamil Nadu, Uttarakhand, Uttar Pradesh, and West Bengal.

***Wadicosa quadrifera* (Gravely, 1924) (Images 12A–G, 26N–O)**

Lycosa quadrifera Gravely, 1924: 608, fig. 4K.

Lycosa quadrifera Tikader & Malhotra, 1980: 422, figs. 324–326

Wadicosa quadrifera Kronestedt, 1993: 314, figs. 1–6.

Wadicosa quadrifera Kronestedt, 2017: 296, figs. 2, 4, 6, 8, 10, 12, 14, 17–18.

Specimens examined: MCC-ARA99, 1 female, 29.ii.2012; MCC-ARA202–ARA203, 2 females, 10.x.2012; MCC-ARA201, 1 male, 10.x.2012; MCC-ARA722–ARA723, 1 female & 1 male, 5.xii.2013, MCC, coll. John Caleb T.D. & Soreiphy Mungkung

Global distribution: India and Sri Lanka.

Distribution in India: Kerala, Karnataka, and Tamil Nadu.

Family Oecobiidae Blackwall

Genus Oecobius Lucas

***Oecobius putus* O. Pickard-Cambridge, 1876 (Image 27A)**

Oecobius putus Tikader, 1962: 682, figs. 1a–d.

Oecobius putus Tikader & Biswas, 1981: 12, figs. 1–4.

Oecobius putus Gajbe, 2007: 427, figs. 11–15.

Specimens examined: MCC-ARA89, 1 female, 14.ii.2012; MCC-ARA38, 1 female, 30.vii.2010; MCC-ARA431–ARA432, 1 male & 1 female, 8.ii.2013, MCC, coll. John Caleb T.D.

Global distribution: Egypt, Sudan to Iran, Azerbaijan, and India. Introduced to USA and Mexico.

Distribution in India: Maharashtra, Madhya Pradesh, Tamil Nadu (new record), and West Bengal.

Family Oxyopidae Thorell

Genus Hamataliwa Keyserling

***Hamataliwa* sp. 1 (Images 13A–G, 27B)**

Specimens examined: NCBS-QA463, 1 female, 18.iii.2013; NCBS-QA465, 1 male, 20.xi.2013; NCBS-QA464, 1 female, 19.vii.2013; MCC-ARA658, 1 female, 18.x.2013; NCBS-QA467, 1 male, 28.ii.2014: MCC, all coll. John Caleb T.D.

Natural History: Found among low vegetation at MCC campus. This species is usually found about the ground

level. The female makes an elongated pod shaped egg sac. Eggs are usually laid on a dry leaf and covered with silk and suspended on a strand of silk while the female guards the egg sac clinging in an upside-down position (Image 13G). Variations in the external appearance occur among individuals depending upon the age. Older spiders are mostly darker while younger ones are brightly coloured.

***Hamataliwa* sp. 2 (Images 13H–M, 27C)**

Specimens examined: NCBS-QA459, 1 female, 10.x.2012; NCBS-QA462, 1 male, 03.xii.2013; NCBS-QA460, 1 female, 8.xi.2012; NCBS-QA461, 1 female, 25.iii.2013; NCBS-QA458, 1 female, 12.vi.2010: MCC, all coll. John Caleb T.D.

Genus Oxyopes Latreille

***Oxyopes hindostanicus* Pocock, 1902 (Images 14A–E, 27D)**

Oxyopes hindostanicus Pocock, 1901: 482.

Oxyopes hindostanicus Sherriffs, 1951: 657, figs. 8–13.

Oxyopes hindostanicus Sherriffs, 1955: 304, fig. 34.

Oxyopes hindostanicus Gajbe, 2008: 51, figs. 102–105.

Specimens examined: MCC-ARA368, 1 female, 23.xii.2012; MCC-ARA468, 1 female, 14.ii.2013; MCC-ARA715, 1 female, 3.xii.2013, coll. John Caleb T.D.

Global distribution: India, Pakistan, and Sri Lanka.

Distribution in India: Uttar Pradesh and Tamil Nadu.

***Oxyopes* sp. (Image 27E)**

Specimens examined: MCC-ARA104, 1 female, 6.iii.2012; MCC-ARA29, 1 female, 20.vii.2010; MCC-ARA321, 1 female, 15.xi.2012, MCC, coll. John Caleb T.D.

Distribution in India: Tamil Nadu.

Genus Peucetia Thorell

***Peucetia viridana* (Stoliczka, 1869) (Image 27F)**

Sphasus viridanus Stoliczka, 1869: 220, pl. 20, fig. 1.

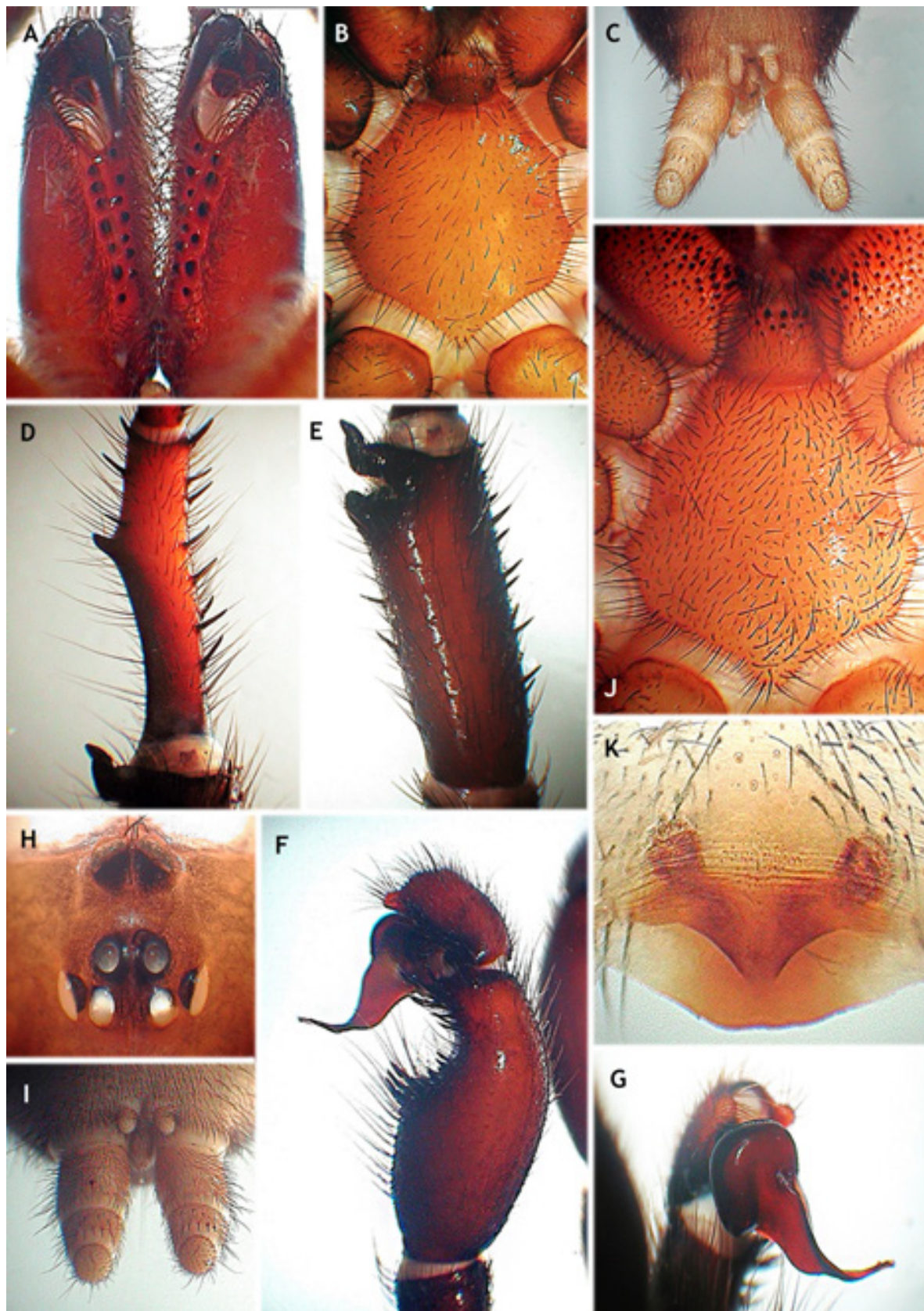
Peucetia viridana Pocock, 1900: 255, figs. 86.

Peucetia viridana Tikader & Biswas, 1981: 65, figs. 110–111.

Specimens examined: MCC-ARA204, 1 female, 10.x.2012; MCC-ARA322, 1 female, 15.xi.2012; MCC-ARA511–ARA512, 1 male & 1 female, 11.iii.2013; MCC-ARA724, 1 female, 5.xii.2013, MCC, coll. John Caleb T.D.

Global distribution: Pakistan, India, Sri Lanka, Bangladesh, and Myanmar.

Distribution in India: Kerala, Tamil Nadu, and West Bengal.



Images 9A–K. *Idiops constructor*. A–G—male. A—chelicerae, ventral view | B—sternum | C—spinnerets, ventral view | D—left metatarsus I, ventral view | E—left tibia, ventral view | F—left palp, retrolateral view | G—bulbus and embolus, ventral view. H–K. Female. H—eye group, dorsal view | I—spinnerets, ventral view | J—sternum | K—vulva, dorsal view. Images not to scale. © John Caleb

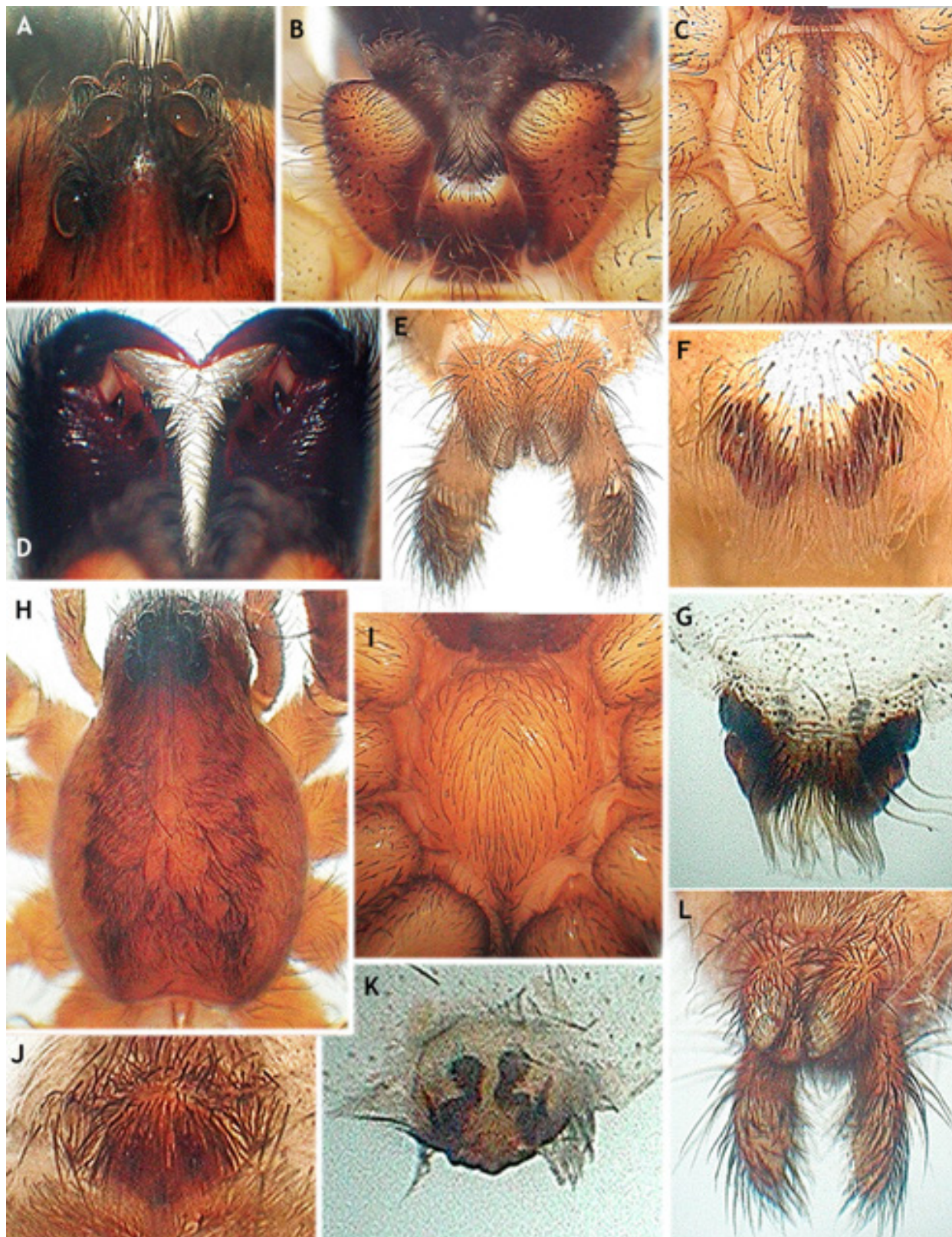


Images 10A–F. *Oedignatha scrobiculata*. A—carapace, dorsal view | B—same, lateral view | C—chelicerae, labium and endites | D—sternum | E—abdomen, ventral view | F—vulva, dorsal view. Images not to scale. © John Caleb

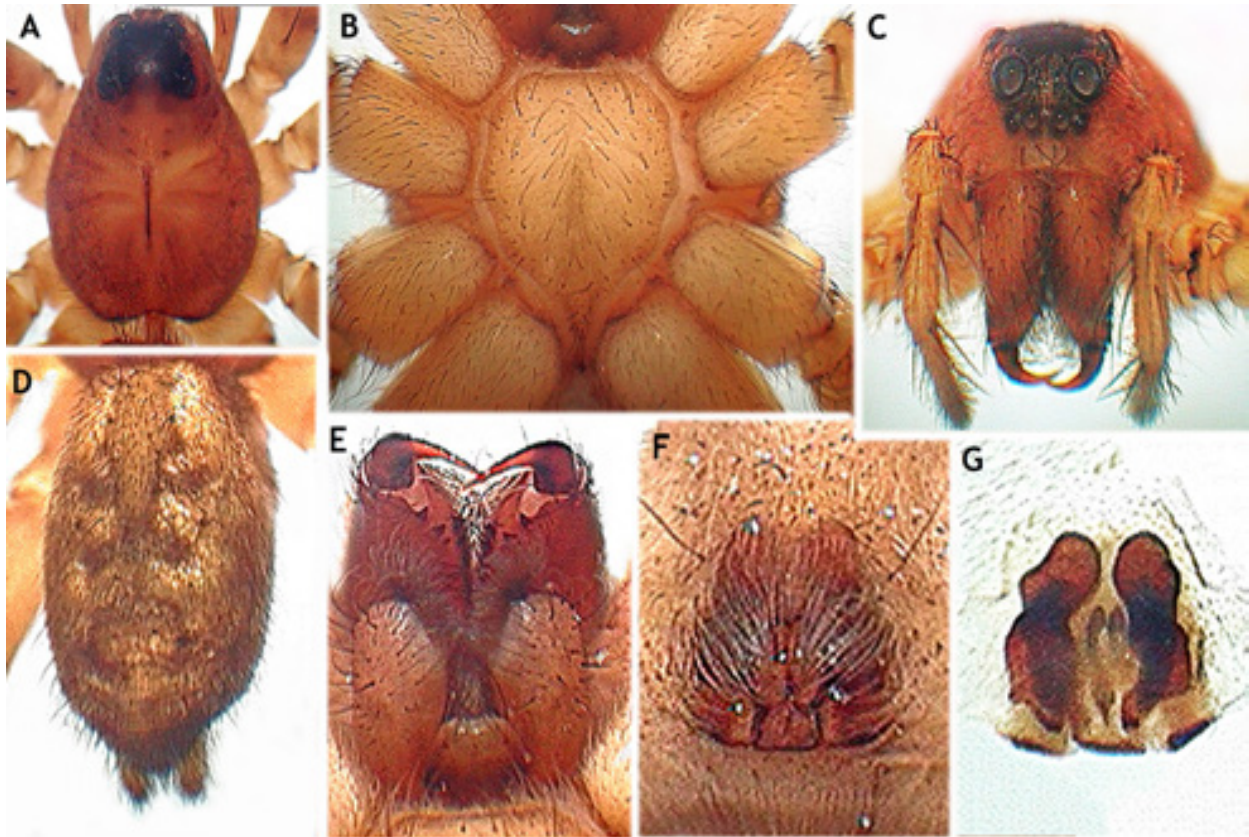
Family Philodromidae Thorell**Genus *Tibellus* Simon*****Tibellus elongatus* Tikader, 1960 (Image 27G)***Tibellus elongatus* Tikader, 1960: 176, figs. 3a–b.*Tibellus elongatus* Tikader, 1971: 82, figs. 20E–F.*Tibellus elongatus* Tikader, 1980a: 217, figs. 288–289.*Tibellus elongatus* Tikader & Biswas, 1981: 88, figs. 152–153.**Specimens examined:** MCC-ARA40, 1 female, 30.vii.2010; MCC-ARA602, 1 female, 27.vi.2013, MCC, coll. John Caleb T.D.**Global distribution:** India.**Distribution in India:** Maharashtra, Madhya Pradesh, Tamil Nadu (new record), and West Bengal.**Family Pholcidae C.L. Koch****Genus *Artema* Walckenaer*****Artema atlanta* Walckenaer, 1837 (Image 27H)***Artema atlanta* Pocock, 1900: 239, fig. 81.*Artema atlanta* Tikader & Biswas, 1981: 18, figs. 12.**Specimens examined:** MCC-ARA686–ARA687, 1 male & 1 female, 15.xi.2013, MCC, coll. John Caleb T.D.**Global distribution:** Northern Africa and Middle East. Introduced elsewhere (mainly tropical and subtropical regions).**Distribution in India:** Andaman & Nicobar Islands, Kerala, Maharashtra, Punjab, Tamil Nadu, Uttar Pradesh, and West Bengal.**Genus *Crossopriza* Simon*****Crossopriza lyoni* (Blackwall, 1867) (Images 27I,J)***Crossopriza lyoni* Pocock, 1900: 240.*Crossopriza lyoni* Tikader & Biswas, 1981: 18, figs. 13–15.*Crossopriza lyoni* Sen et al., 2015: 88, figs. 514–518, pl. 19.**Specimens examined:** MCC-ARA87, 1 male, 14.ii.2012; MCC-ARA284, 1 female, 5.xi.2012, MCC, coll. John Caleb T.D.**Global distribution:** Africa. Introduced to USA, Venezuela, Germany, China, Japan, Korea, tropical Asia, and Australia.**Distribution in India:** Tamil Nadu and West Bengal.**Genus *Pholcus* Walckenaer*****Pholcus phalangioides* (Fuesslin, 1775) (Image 27K)***Pholcus phalangioides* Sen et al., 2015: 88, figs. 509–513, pl. 19.**Specimens examined:** MCC-ARA286–ARA287, 2 females, 5.xi.2012; MCC-ARA288, 1 male, 5.xi.2012; MCC-ARA426, 1 female, 29.i.2013, MCC, coll. John Caleb T.D.**Global distribution:** Western Asia. Introduced to both Americas, Europe, Africa, Asia, Australia, New Zealand,

and numerous islands.

Distribution in India: Tamil Nadu and West Bengal.***Pholcus* sp. (Image 27L)****Specimens examined:** MCC-ARA311, 1 female, 14.xi.2012; MCC-ARA427, 1 female, 29.i.2013; MCC-ARA114, 1 female, 21.iii.2012, MCC, coll. John Caleb T.D.**Distribution in India:** Tamil Nadu.**Family Salticidae Blackwall****Genus *Bianor* Peckham & Peckham*****Bianor balius* Thorell, 1890 (Images 15A–C, 27M)***Bianor carli* Reimoser, 1934: 506, fig. 27.*Bianor incitatus* Logunov, 2001: 236, figs. 87–104.*Bianor balius* Logunov, 2019: 102, figs. 12–16.**Specimens examined:** MCC-ARA210, 1 female, 11.x.2012; MCC-ARA421, 1 male 21.i.2013; MCC-ARA500, 1 female, 27.ii.2013, MCC, coll. John Caleb T.D.**Global distribution:** India, Sri Lanka, Bhutan, China, Japan (Ryukyu Is.), Thailand, Cambodia, Malaysia, Indonesia, and Kiribati (Caroline Is.)**Distribution in India:** Bihar, Karnataka, Madhya Pradesh, Meghalaya, and Tamil Nadu.**Genus *Brettus* Thorell*****Brettus* cf. *adonis* Simon, 1900 (Images 15D, 27N)***Brettus adonis* Simon, 1900: 32.*Portia adonis* Simon, 1901: 402.*Brettus adonis* Wanless, 1979: 186, figs. 1B,D,F,H; 2D–E; 3A.**Specimens examined:** MCC-ARA550, 1 female, 7.v.2013, MCC, coll. Nagoor Meerasa Mohammed**Global distribution:** India and Sri Lanka.**Distribution in India:** Tamil Nadu.**Genus *Carrhotus* Thorell*****Carrhotus viduus* (C.L. Koch, 1846) (Image 27O)***Carrhotus viduus* Pocock, 1904: 804, pl. 66, fig. 8.*Carrhotus viduus* Jastrzębski, 1999: 4, figs. 8–11.*Plexippus gajbei* Karthikeyani & Kannan, 2013: 43, figs. 1a–c, images 1–2.*Carrhotus viduus* Roy, Saha & Raychaudhuri, 2016: 18, figs. 14A–E, 25C, 27J.*Carrhotus viduus* Caleb, 2016a: 273, figs. 1–5.**Specimens examined:** MCC-ARA207, 1 male, 11.x.2012; MCC-ARA458, 1 female, 13.ii.2013; MCC-ARA502, 1 female, 27.ii.2013, MCC, coll. John Caleb T.D.**Global distribution:** India to China.**Distribution in India:** Assam, Lakshadweep Islands, Maharashtra, Tamil Nadu, and West Bengal.



Images 11A–G. *Hippasa greenalliae*. A—eye group, dorsal view | B—labium and endites | C—sternum | D—chelicerae, ventral view | E—spinnerets, ventral view | F—epigyne, ventral view | G—vulva, dorsal view. H–L. *Hippasa madraspatana*. H—carapace, dorsal view | I—sternum | J—epigyne, ventral view | K—vulva, dorsal view | L—spinnerets, ventral view. Images not to scale. © John Caleb



Images 12A–G. *Wadicosa quadrifera*. A—carapace, dorsal view | B—sternum | C—front view | D—abdomen, dorsal view | E—chelicerae, labium and endites, ventral view | F—epigyne, ventral view | G—vulva, dorsal view. Images not to scale. © John Caleb

Genus *Chrysilla* Thorell

Chrysilla volupe (Karsch, 1879) (Image 28A)

Chrysilla volupe Caleb, 2016a: 271.

Chrysilla volupe Caleb et al., 2018: 144, figs. 1–25.

Specimens examined: MCC-ARA30, 1 male, 20.vii.2010, MCC, Chennai, coll. Sam Thomas.

Global distribution: Sri Lanka, India, and Bhutan.

Distribution in India: Gujarat, Karnataka, Kerala, Maharashtra, Tamil Nadu, Uttarakhand, and West Bengal.

Genus *Cyrba* Simon

Cyrba ocellata (Kroneberg, 1875) (Images 15E–G, 28B)

Cyrba micans Simon, 1885b: 457.

Cyrba ocellata Wanless, 1984: 455, figs. 7A–F, 8A–G, 18A–C.

Cyrba ocellata Talwar et al., 2017: 139, figs. 1–13.

Cyrba ocellata Majagi et al., 2018: 16, figs. 1–6.

Specimens examined: MCC-ARA31, 1 male, 20.vii.2010, MCC, coll. Sam Thomas.

Global distribution: Eastern Africa to India and Indonesia, Caucasus to central Asia, and China. Introduced to Australia (Queensland).

Distribution in India: Maharashtra and Tamil Nadu.

Genus *Harmochirus* Simon

Harmochirus exaggeratus Caleb & Mathai, 2015 (Images 15H–K, 16A–C, 28C)

Harmochirus exaggeratus Caleb & Mathai, 2015: 117, figs. 1–26.

Specimens examined: NCBS-QA471, holotype male, MCC, 27.ii.2014; NCBS-QA472, allotype female, 12.viii.2013; NCBS-QA468, 1 paratype male, 10.vi.2013; NCBS-QA470, 1 male, 19.vii.2013; NCBS-QA473, 1 female, 27.vi.2013; all coll. John Caleb T.D.

Global distribution: India.

Distribution in India: Tamil Nadu.

Natural History: Found among grass and leaf litter in the scrub.

Harmochirus zabkai Logunov, 2001 (Images 16D–E, 28D)

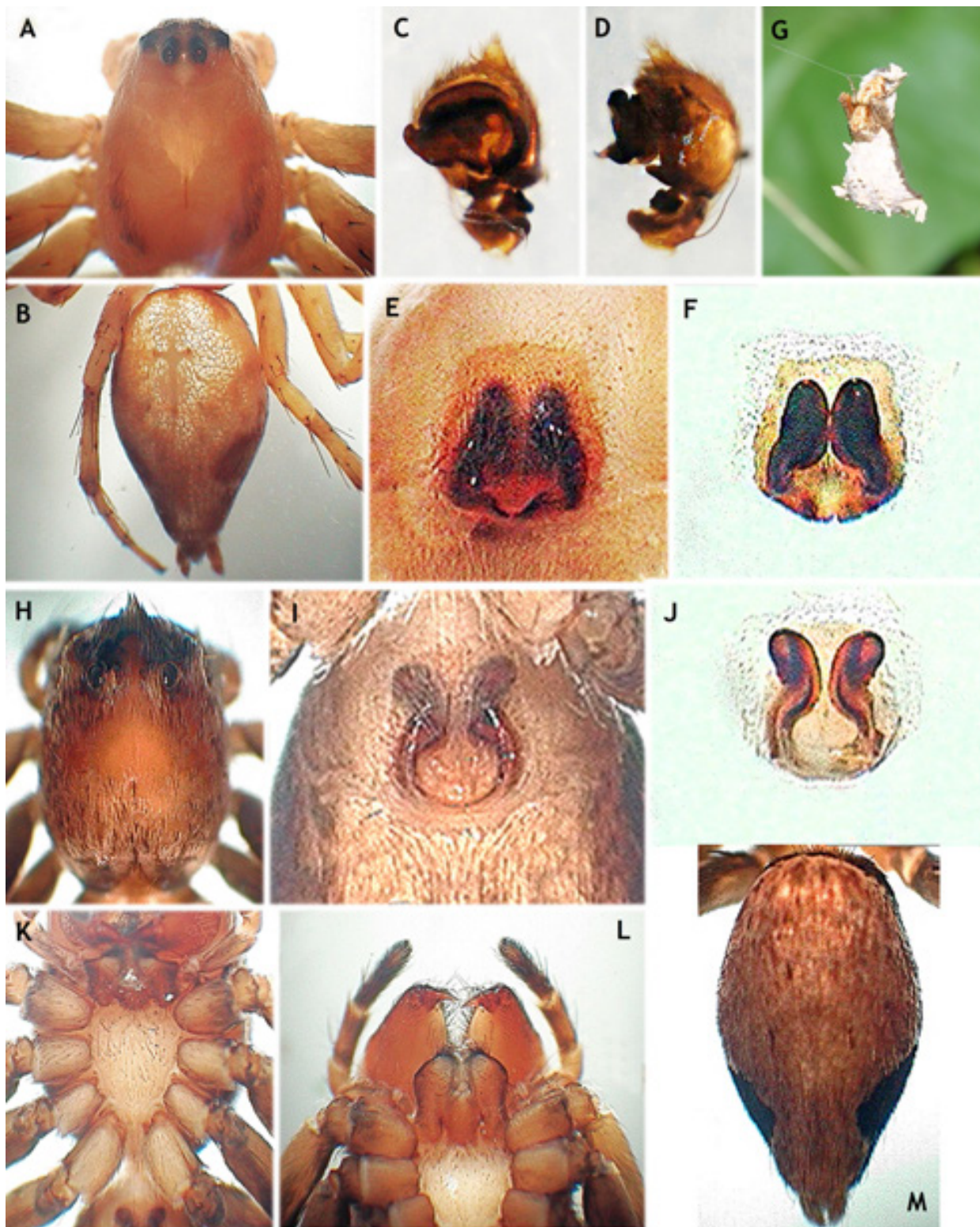
Harmochirus brachiatus Tikader, 1976: 410, figs. 1–5.

Harmochirus zabkai Logunov, 2001: 260, figs. 248–256.

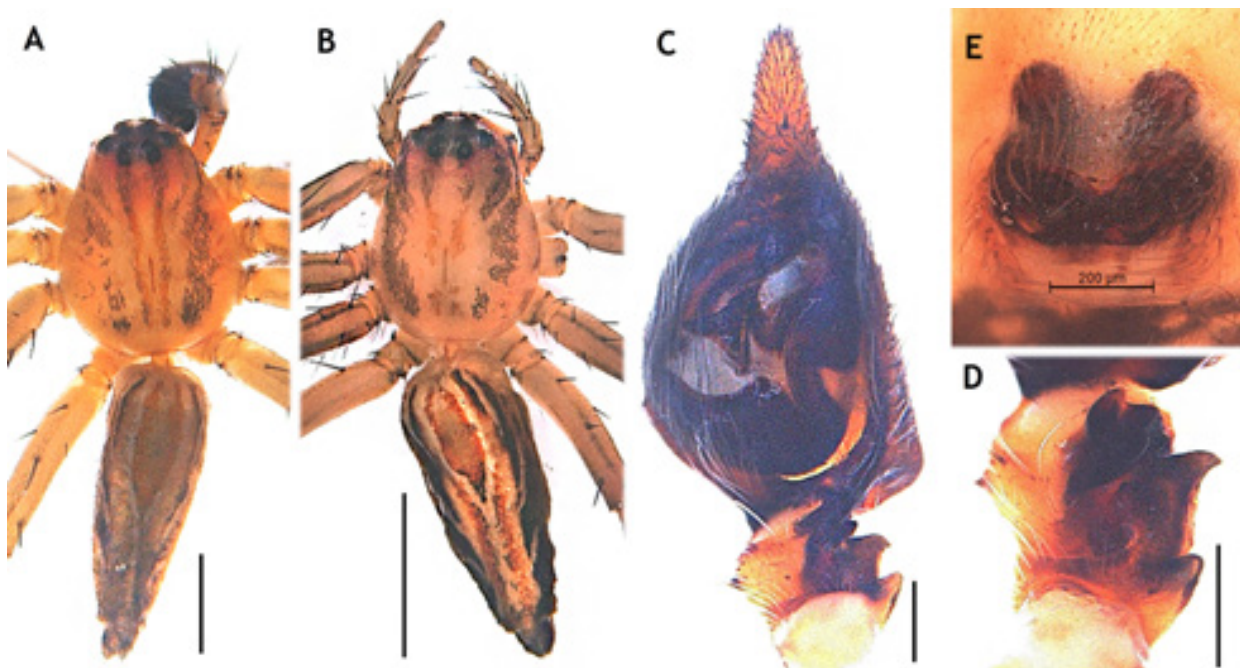
Specimens examined: MCC-ARA429, 1 male, 29.i.2013, MCC, coll. John Caleb T.D.

Global distribution: Pakistan, India, Sri Lanka, Nepal, Laos, and Vietnam.

Distribution in India: Karnataka, Maharashtra, Punjab,



Images 13A–G. *Hamataliwa* sp. 1. A—carapace, dorsal view | B—abdomen, dorsal view | C— expanded left palp, ventral view | D—same, retrolateral view | E—epigyne, ventral view | F—vulva, dorsal view | G—general habitus, female with egg sac. H–M. *Hamataliwa* sp. 2. H—carapace, dorsal view | I—epigyne, ventral view | J—vulva, dorsal view | K—sternum | L—chelicerae, labium and endites, ventral view | M—abdomen, dorsal view. Images not to scale. © John Caleb



Images 14A–E. *Oxyopes hindostanicus*. A—dorsal view, male | B—same, female | C—left palp, ventral view | D—palpal tibia and patella, ventral view | E—epigyne, ventral view. Scale bars: A—1mm | B—2mm | C–E—0.2mm. © John Caleb

and Tamil Nadu.

Genus *Hasarius* Simon

Hasarius adansoni (Audouin, 1826) (Image 28E)

Hasarius adansoni Prószyński & Deeleman-Reinhold, 2010: 168, figs. 79–84.

Specimens examined: MCC-ARA589, 1 male, 21.vi.2013, MCC, coll. John Caleb T.D.

Global distribution: Africa. Introduced to both Americas, Europe, India, Laos, Vietnam, China, and Japan

Distribution in India: Tamil Nadu (new record) and West Bengal.

Genus *Hyllus* C.L. Koch

Hyllus manu Caleb et al., 2014 (Images 16F–H, 28F–G)

Hyllus manu Caleb et al., 2014: 635, figs. 1–10.

Specimens examined: **Holotype:** SRC-ZSI I/SP 12, 1 male, 10.vi.2013, MCC; paratypes from same location: SRC-ZSI I/SP 15, 1 male 12.xii.2013; SRC-ZSI I/SP 13, 1 female, 10.vi.2013; SRC-ZSI I/SP 14, 1 female, 12.viii.2013; NCBS-QA451, 1 female, 18.x.2013, coll. John Caleb T.D. & Anulin Christudhas.

Global distribution: India.

Distribution in India: Tamil Nadu.

Hyllus semicupreus (Simon, 1885) (Image 28H)

Thyene semicuprea Simon, 1885a: 4, 29, pl. 10, fig. 1.

Sandalodes semicupreus Simon, 1903: 689, figs. 820–821.

Phidippus indicus Tikader, 1974a: 122, figs. 5–9.

Phidippus indicus Tikader & Biswas, 1981: 92, figs. 160–163.

Hyllus semicupreus Prószyński, 1992: 180, figs. 57, 60–64.

Hyllus semicupreus Roy, Saha & Raychaudhuri, 2016: 16, figs. 12A–E, 25A, 27H.

Specimens examined: MCC-ARA264, 1 male, 18.x.2012; MCC-ARA261, 1 female, 18.x.2012; MCC-ARA97, 1 male, 29.ii.2012; MCC-ARA109, 1 female, 15.iii.2012; MCC-ARA320, 1 female, 15.xi.2012, MCC, coll. John Caleb T.D.

Global distribution: India, Sri Lanka.

Distribution in India: Andhra Pradesh, Goa, Gujarat, Tamil Nadu (new record), and West Bengal.

Genus *Langona* Simon

Langona albolinea Caleb & Mathai, 2015 (Image 28I)

Langona albolinea Caleb & Mathai, in Caleb, Mungkung & Mathai, 2015: 3, figs. 6–15.

Specimens examined: NCBS-QA455, holotype male, MCC, 12.viii.2013, coll. John Caleb T.D.

Global distribution: India.

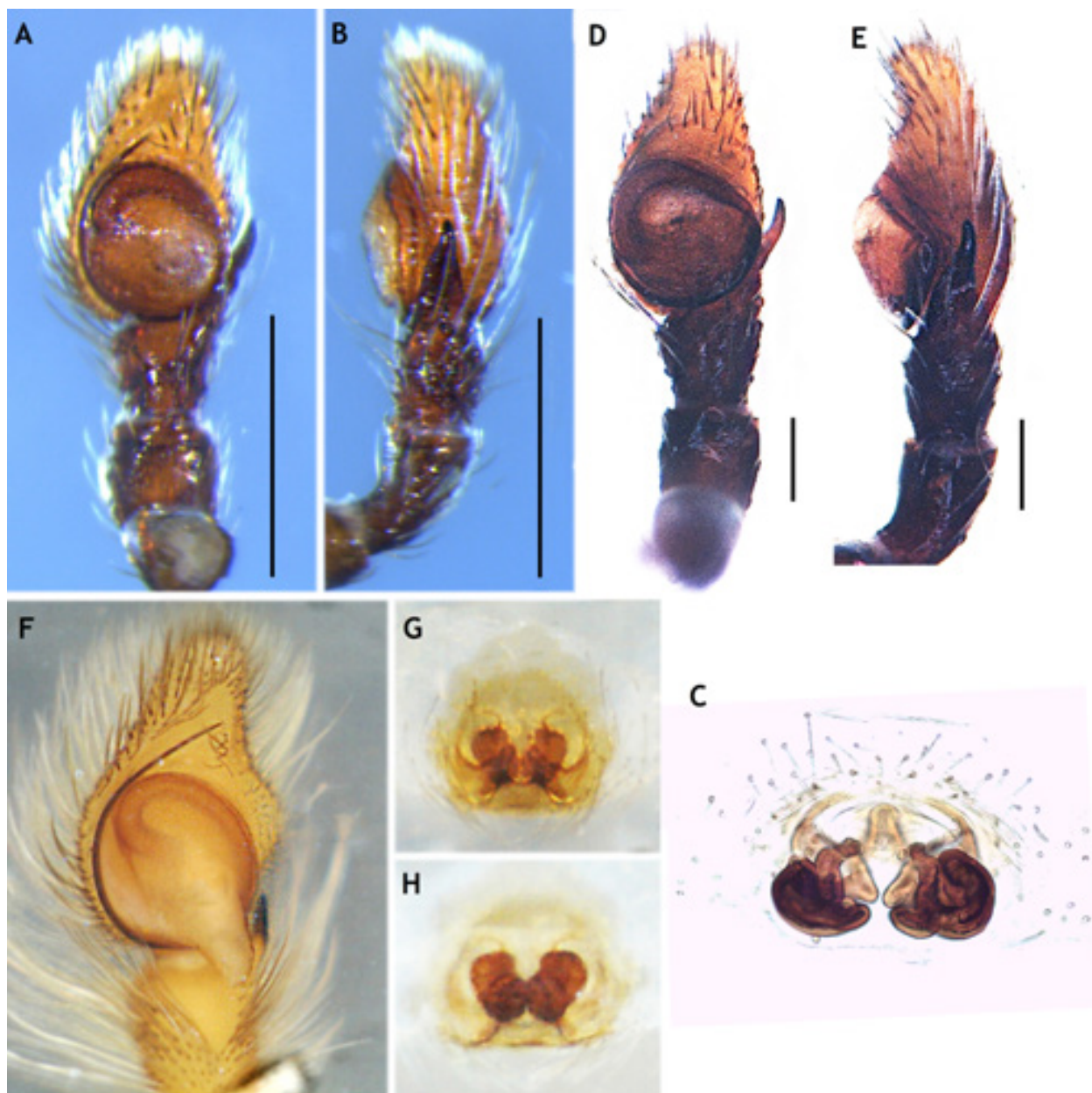
Distribution in India: Tamil Nadu.

Langona davidi (Caleb, Mungkung & Mathai, 2015) comb. nov. (Images 17H–J, 29C)

Mashonarus davidi Caleb, Mungkung & Mathai, 2015: 5, figs. 16–25.



Images 15A–C. *Bianor balius*. A—dorsal view | B—left palp, ventral view | C—same, retrolateral view. D—*Brettus* cf. *adonis*. Epigyne, ventral view. E–G. *Cyba ocellata*. E—left palp, ventral view | F—same, retrolateral view | G—epigyne, ventral view. H–K. *Harmochirus exaggeratus*. H—female leg I, retrolateral view | I—same, prolateral view | J—male leg I, retrolateral view | K—same, prolateral view. Scale bars: A, H–K—1mm; B–E, G—0.1mm. © John Caleb



Images 16A–C. *Harmochirus exaggeratus*. A—left palp, ventral view | B—same, retrolateral view | C—vulva, dorsal view. D–E. *Harmochirus zabkai*. D—left palp, ventral view | E—same, retrolateral view. F–H. *Hyllus manu*. F—left palp, ventral view | G—epigyne, ventral view | H—vulva, dorsal view. Scale bars: A–B—0.5mm | D–E—0.1mm. © John Caleb

Phlegra davidi Logunov & Azarkina, 2018: 112, figs. 504–506.

Specimens examined: NCBS-QA483, holotype male, 04.x.2014, MCC, coll. Soreiphy Mungkung & John Caleb T.D.; NCBS-AU138, 1 male, 13.ix.2016, MCC, coll. John Caleb T.D.

Global distribution: India.

Distribution in India: Tamil Nadu.

Remarks: The species was originally described in the genus *Mashonarus* but was later transferred to *Phlegra*

by Logunov & Azarkina (2018). It is assigned to *Langona* based on the presence of a single RTA accompanied by thick long setae (Fig. 17J) which is characteristic of the genus.

Langona tigrina (Simon, 1885) (Images 18A–I, 28J)

Aelurillus tigrinus Simon, 1885b: 456, pl. 10, fig. 9.

Langona tigrina Heciak & Prószyński, 1983: 228, figs. 17,32,39.

Specimens examined: MCC-ARA195, 1 female,

9.x.2012; MCC-ARA285, 1 female, 5.xi.2012; MCC-ARA469, 1 male, 14.ii.2013; MCC-ARA508, 1 male, 11.iii.2013, MCC-ARA590–ARA591, 1 female & 1 male, 21.vi.2013, MCC, coll. John Caleb T.D.

Diagnosis. The male palp resembles *L. bhutanica* but can be distinguished by the absence of flattened scale-like bristles at the edge of the tibial junction (present in *L. bhutanica*) (cf. fig 10 in Heciak & Prószyński 1983 with Image 18E). Females can be readily distinguished by its abdominal pattern with a median lighter stripe with lateral dark streaks (cf. fig. 39 in Heciak & Prószyński 1983 with Image 18F).

Description. Male (in mm; Images 18A–E). Total length: 4.60; carapace: 2.46 long, 1.84 wide; abdomen: 2.14 long, 1.32 wide. Clypeus height 0.21. Eye measurements: AME 0.33, ALE 0.19, PME 0.07, PLE 0.17, AER 1.10, PER 1.11, EFL 0.82. Leg measurements: I 3.49 (1.24, 0.76, 0.60, 0.46, 0.43); II 3.40 (1.14, 0.75, 0.65, 0.50, 0.36); III 4.62 (1.47, 0.86, 0.78, 0.94, 0.57); IV 4.81 (1.46, 0.67, 1.20, 0.95, 0.53). Leg formula: 4312. Carapace reddish-brown, eye field densely covered with golden-brown hairs. Posterior part of the carapace with a pair of faint white stripes. Outer margin of carapace lined by a broad band of white hairs (Image 18A). Clypeus covered with white hairs (Image 18B). Anterior eyes surrounded by yellow-white scales. Sternum oval, yellow brown. Chelicerae yellowish-brown, with a single tooth on the promargin and toothless on the retromargin; labium and maxillae brown with paler margins. Legs yellowish except brown femora, tibiae and metatarsi of leg I. Abdomen brownish with a mid-longitudinal darker patch in the cardiac area. Lateral margins covered with white hairs. Spinnerets yellow, covered with white hairs dorsally (Image 18A). Palps yellow-brown; embolus thin, bulbus with a proximal projection; RTA single accompanied with long black setae; VTA blunt, directed anteriorly (Images 18C–E).

Female (in mm; Images 18F–I). Total length: 5.67; carapace: 2.38 long, 1.91 wide; abdomen: 3.29 long, 2.27 wide. Clypeus height 0.22. Eye measurements: AME 0.31, ALE 0.19, PME 0.05, PLE 0.16, AER 1.14, PER 1.19, EFL 0.81. Leg measurements: I 3.54 (1.27, 0.87, 0.59, 0.38, 0.43); II 3.32 (1.16, 0.84, 0.56, 0.38, 0.38); III 4.60 (1.40, 0.91, 0.82, 0.90, 0.57); IV 5.12 (1.42, 0.87, 1.03, 1.20, 0.60). Leg formula: 4312. Colour same as in males (Image 18F) but differs in the following: the clypeus brownish-yellow; thin white stripe originates between the AMEs and ALEs gently moves laterally and joins the lateral white band (Image 18G). Abdomen brownish, with a median lighter band with lateral darker streaks broken by diagonal branches (Image 18F). Epigyne as in Image 18H; copulatory ducts long; spermathecae pear-shaped (Image 18I).

Remarks: Heciak & Prószyński (1983) redescribed the species based on the single holotype female originally

described by Simon in 1885. There are no additional records of this species in the literature. The species was known hitherto by the female sex only and the male is described here for the first time. The species is discovered and redescribed 135 years after its first description.

Global distribution: India.

Distribution in India: Tamil Nadu.

Genus *Menemerus* Simon

Menemerus bivittatus (Dufour, 1831) (Images 28K,L)

Menemerus bivittatus Sen et al., 2015: 33, figs. 87–91, pl. 13.

Menemerus bivittatus Dhali, Saha & Raychaudhuri, 2017: 30, figs. 43–47, pl. 17.

Specimens examined: MCC-ARA196, 1 male, 9.x.2012; MCC-ARA209, 1 male, 11.x.2012; MCC-ARA330, 1 male, 23.xi.2012; MCC-ARA433, 1 female, 8.ii.2013; MCC-ARA539, 1 female, 25.iii.2013; MCC-ARA645, 1 male, 12.viii.2013, MCC, coll. John Caleb T.D.

Global distribution: Africa. Introduced to North, central, and South America, southern Europe, China, Japan, Australia, and Pacific Islands.

Distribution in India: Tamil Nadu (new record) and West Bengal.

Genus *Myrmaplata* Prószyński

Myrmaplata plataleoides O. Pickard-Cambridge, 1869 (Image 28M)

Myrmarachne plataleoides Bhattacharya, 1937: 426, fig. 3.

Myrmarachne daitarensis Prószyński, 1992: 185, figs. 80–81, 83–89.

Myrmarachne megachelae Kumar & Mohanasundaram, 1998: 27, 5 unnumbered figs. Syn. nov.

Myrmarachne plataleoides Sen et al., 2015: 42, figs. 147–151, pl. 14.

Myrmarachne plataleoides Benjamin, 2015: 2646, figs. 29A–D, 30A–D, 31A–E.

Myrmarachne plataleoides Roy, Saha & Raychaudhuri, 2016: 25, figs. 21A–G, 26A, 28A–C.

Myrmarachne plataleoides Caleb, 2016b: 411, figs. 31–54.

Specimens examined: NCBS-AR134, 1 male, 25.iii.2013; NCBS-AR133, 2 males, 09.v.2013, MCC, coll. John Caleb T.D. & Nagoor Meerasa Mohammed.

Global distribution: India, Sri Lanka, China, and southeastern Asia.

Distribution in India: Bihar, Karnataka, Odisha, Tamil Nadu, and West Bengal.

Remarks: *Myrmarachne megachelae* Kumar & Mohanasundaram, 1998 was described from Coimbatore, Tamil Nadu. From the original illustrations it is apparent that the species corresponds to the darker form of *M.*



Images 17A–D. *Phanuelus gladstone*. A—left palp, ventro-lateral view | B—expanded palp showing the embolic coils, retrolateral view | C—epigyne with plug on left side, possibly a broken embolic tip, ventral view | D—vulva, dorsal view. E–G. *Phintelloides jesudasi*. E—left palp, ventral view | F—same, retrolateral view | G—vulva, dorsal view. H–J. *Langona davidi*. H—expanded left palp, retrolateral view | I—expanded palp showing the embolic division | J—palp, dorsal view. Scale bars: A–B, H, J—0.1mm | E–F—0.2mm. © John Caleb



plataleoides as illustrated in Caleb (2016b) (cf. figs from Kumar & Mohanasundaram (1998) with figs 37–40 in Caleb (2016b)). The species is identical in general morphology and cheliceral pattern with dorsally flattened basal region and swollen anterior region and dentition with 5 promarginal teeth. Therefore, *M. megachelae*, is considered a junior synonym of *M. plataleoides*.

Genus *Myrmarachne* MacLeay

Myrmarachne melanocephala MacLeay, 1839 (Image 28N)

Myrmarachne melanocephala MacLeay, 1839: 11, pl. 1, fig. 4.

Myrmarachne orientales Tikader, 1973: 60, figs. 3–6.

Myrmarachne orientales Tikader & Biswas, 1981: 105, figs. 193–194.

Myrmarachne orientales Sen et al., 2015: 42, figs. 152–156, pl. 14.

Myrmarachne melanocephala Roy, Saha & Raychaudhuri, 2016: 24, figs. 20A–F, 25I, 27R.

Myrmarachne melanocephala Caleb, 2016b: 410, figs. 20–30.

Myrmarachne melanocephala Dhali, Saha & Raychaudhuri, 2017: 39, figs. 105–109, pl. 17.

Specimens examined: MCC-ARA205, 1 male, 10.x.2012; MCC-ARA314–ARA315, 1 male & 1 female, 14.xi.2012; MCC-ARA630, 1 female, 27.vii.2013; MCC-ARA660, 1 female, 18.x.2013, MCC, coll. John Caleb T.D.

Global distribution: Pakistan to Indonesia.

Distribution in India: Tamil Nadu, Uttarakhand, and West Bengal.

Genus *Phanuelus* Caleb & Mathai

Phanuelus gladstone Caleb & Mathai, 2015 (Images 17A–D, 28O)

Phanuelus gladstone Caleb & Mathai, in Caleb, Mungkung & Mathai, 2015: 7, figs. 26–46.

Specimens examined: NCBS-QA474, holotype male, MCC, 13.ix.2013, coll. John Caleb T.D.; paratypes: NCBS-QA475, 1 female, 13.ix.2013; NCBS-QA476, 1 male, 27.vi.2013; NCBS-QA477, 1 male, 27.x.2014; NCBS-QA478, 1 male, 28.x.2014, coll. John Caleb T.D.

Global distribution: India.

Distribution in India: Tamil Nadu.

Natural history: The species is tiny and cryptically coloured making it hard to notice.

Genus *Phintella* Strand

Phintella vittata (C.L. Koch, 1846) (Image 29A)

Salticus ranjitus Tikader, 1967: 117, figs. 1a–c.

Salticus ranjitus Tikader & Biswas, 1981: 89, figs. 154–155.

Phintella vittata Prószyński, 1992: 200, figs. 148–152.

Phintella vittata Sen et al., 2015: 37, figs. 10–111, pl. 13.

Phintella vittata Roy, Saha & Raychaudhuri, 2016: 18, figs. 15A–E, 25D, 27K.

Phintella vittata Dhali, Saha & Raychaudhuri, 2017: 34, figs. 73–77, pl. 18.

Phintella vittata Tyagi et al., 2019: Supplement, figs. S2.54, S3.27–30.

Specimens examined: MCC-ARA32, 1 female, 20.vii.2010; MCC-ARA262–ARA263, 2 females, 18.x.2012; MCC-ARA608, 1 male, 18.vii.2013, MCC, coll. John Caleb T.D.

Global distribution: India to Philippines.

Distribution in India: Goa, Sikkim, Tamil Nadu (new record), and West Bengal.

Genus *Phintelloides* Kanesharatnam & Benjamin

Phintelloides jesudasi Caleb & Mathai, 2014 (Images 17E–G, 29B)

Phintelloides jesudasi Kanesharatnam & Benjamin, 2019: 41, figs. 3, 6E–H, 17A–E, 18A–D.

Specimens examined: SRC-ZSI I/SP 7, holotype male, 18.v.2014, Vanianchatiram, Chennai, Tamil Nadu, coll. John Caleb T.D. & John Thomas C.H.; SRC-ZSI I/SP 8, 1 female allotype (data same as holotype); SRC-ZSI I/SP 9, 1 female paratype, 18.viii.2013, MCC, coll. John Caleb T.D.

Global distribution: India and Sri Lanka.

Distribution in India: Tamil Nadu.

Genus *Phlegra* Simon

Phlegra prasanna Caleb & Mathai, 2015 (Images 19A–D, 29D)

Phlegra prasanna Caleb & Mathai, in Caleb, Mungkung & Mathai, 2015: 11, figs. 47–56.

Specimens examined: NCBS-QA481, holotype male, 20.iii.2014, MCC, coll. John Caleb T.D.; Paratype: NCBS-QA482, 1 male paratype, 06.x.2014, coll. John Caleb T.D.

Global distribution: India.

Distribution in India: Andhra Pradesh and Tamil Nadu.

Genus *Plexippus* C.L. Koch

Plexippus paykulli (Audouin, 1826) (Image 29E)

Plexippus paykulli Tikader, 1967: 120, figs. 4a–c.

Marpissa bengalensis Tikader, 1974b: 211, figs. 11–12.

Marpissa mandali Tikader, 1974b: 213, figs. 13–16.

Plexippus paykulli Sen et al., 2015: 31, figs. 72–76, pl. 13.

Plexippus paykulli Roy, Saha & Raychaudhuri, 2016: 16, figs. 13A–E, 25B, 27I.

Plexippus paykulli Dhali, Saha & Raychaudhuri, 2017: 27, figs. 20–27, pl. 18.

Plexippus paykulli Tyagi et al., 2019: Supplement, figs. S2.57, S3.33–36.



Images 18A–I. *Langona tigrina*. A–E—male. A—dorsal view | B—front view | C—left palp, ventral view | D—same, retrolateral view | E—same, dorsal view. F–I—female. F—dorsal view | G—front view | H—epigyne, ventral view | I—vulva, dorsal view. Scale bars: A, F—1mm | B, G—0.5mm | C–E, H–I—0.1mm. © John Caleb



Specimens examined: MCC-ARA111, 1 male, 15.iii.2012; MCC-ARA513, 1 male, 11.iii.2013, MCC, coll. John Caleb T.D.

Global distribution: Africa. Introduced to both Americas, Europe, Middle East, India, China, Japan, Korea, Philippines, Papua New Guinea, Australia, and Pacific islands.

Distribution in India: Lakshadweep Islands, Maharashtra, Sikkim, Tamil Nadu (new record), and West Bengal.

***Plexippus petersi* (Karsch, 1878) (Image 29F)**

Plexippus petersi Tyagi et al., 2019: Supplement, figs. S2.56, S3.37–38.

Specimens examined: MCC-ARA43, 1 male, 9.i.2011; MCC-ARA576, 1 male, 10.vi.2013, MCC, coll. John Caleb T.D.

Global distribution: Asia. Introduced to Africa and Pacific islands.

Distribution in India: Tamil Nadu (new record) and West Bengal.

Genus *Rhene* Thorell

***Rhene flavicomans* Simon, 1902 (Image 29G)**

Rhene flavicomans Jastrzębski, 1997: 51, figs. 9–11.

Specimens examined: MCC-ARA34, 1 female, 20.vii.2010; MCC-ARA546, 1 female, 25.iii.2013, MCC, coll. John Caleb T.D.

Global distribution: India, Nepal, Bhutan, Sri Lanka, Thailand, and Vietnam.

Distribution in India: Tamil Nadu (new record) and West Bengal.

Genus *Stenaelurillus* Simon

***Stenaelurillus lesserti* Reimoser, 1934 (Images 19E–J, 29H)**

Stenaelurillus lesserti Reimoser, 1934: 504, figs. 25–26.

Stenaelurillus lesserti Prószyński, 1984: 139.

Stenaelurillus lesserti Wesolowska, 2014: 248, figs. 1A–B, 2A–F, 3A–D.

Stenaelurillus lesserti Sebastian et al., 2015: 72, figs. 4A–C, 5A–G, 6A–C, 7B, 10A–J, 11A–F.

Stenaelurillus lesserti Caleb & Sanap, 2016: 83, figs. 1–11.

Stenaelurillus lesserti Logunov & Azarkina, 2018: 77, figs. 87–89, 336–337.

Specimens examined: MCC-ARA579–ARA583, 1 male, 4 females, 10.vi.2013; MCC-ARA616, 1 female, 22.vii.2013; NCBS-AR118, 1 male, 26.vi.2013; NCBS-AR119, 1 male, 21.vi.2013; NCBS-AR120, 1 male, 18.vii.2013; NCBS-AR121, 1 male, 02.vii.2013; NCBS-AR122, 1 female, 05.ix.2013; MCC, all coll. John Caleb T.D.; NCBS-AR123, 2 females, 31.i.2014, coll. Karthy.

Type material: Type material kept at NHMW, Vienna. Reg No: NHMW 21.890. Photographs of the types were obtained from NHMW by Mr. M. Freudenshuss.

Global distribution: India.

Distribution in India: Karnataka, Kerala, and Tamil Nadu.

***Stenaelurillus metallicus* Caleb & Mathai, 2016 (Images 19K–N, 29I)**

Stenaelurillus metallicus Caleb & Mathai, 2016a: 185, figs. 1–22.

Specimens examined: NCBS-AR103, holotype male, 21.vi.2013, MCC, coll. John Caleb T.D.; paratypes (from same location): NCBS-AR110, 1 male, 21.vi.2013; NCBS-AR109, 1 male, 18.vii.2013; NCBS-AR104 & AR113, 1 male & 1 female, 5.ix.2013; NCBS-AR112, 1 female 11.xi.2013; NCBS-AR111, 1 male, 21.iv.2015, all coll. John Caleb T.D.; NCBS-AR105–AR108 & AR114–AR117, 4 males & 4 females, 30.i.2014, coll. Karthy

Global distribution: India.

Distribution in India: Tamil Nadu.

Genus *Telamonia* Thorell

***Telamonia dimidiata* (Simon, 1899) (Image 29J)**

Phidippus pateli Tikader, 1974a: 124, figs. 10–11.

Phidippus pateli Tikader & Malhotra, 1978: 543, figs. 1–3.

Phidippus pateli Tikader & Biswas, 1981: 91, figs. 156–159.

Telamonia dimidiata Prószyński, 1992: 207.

Telamonia dimidiata Sen et al., 2015: 38, figs. 117–121, pl. 13.

Telamonia dimidiata Roy, Saha & Raychaudhuri, 2016: 12, figs. 10A–E, 24H, 27F.

Specimens examined: MCC-ARA236, 1 female, 16.x.2012; MCC-ARA313, 1 female, 14.xi.2012; MCC-ARA90, 1 male, 15.ii.2012; MCC-ARA327–ARA328, 1 male & 1 female, 23.xi.2012; MCC-ARA479, 1 male, 21.ii.2013; MCC-ARA514, 1 female, 11.iii.2013, MCC, coll. John Caleb T.D.

Global distribution: India, Bhutan, Malaysia, and Indonesia (Sumatra).

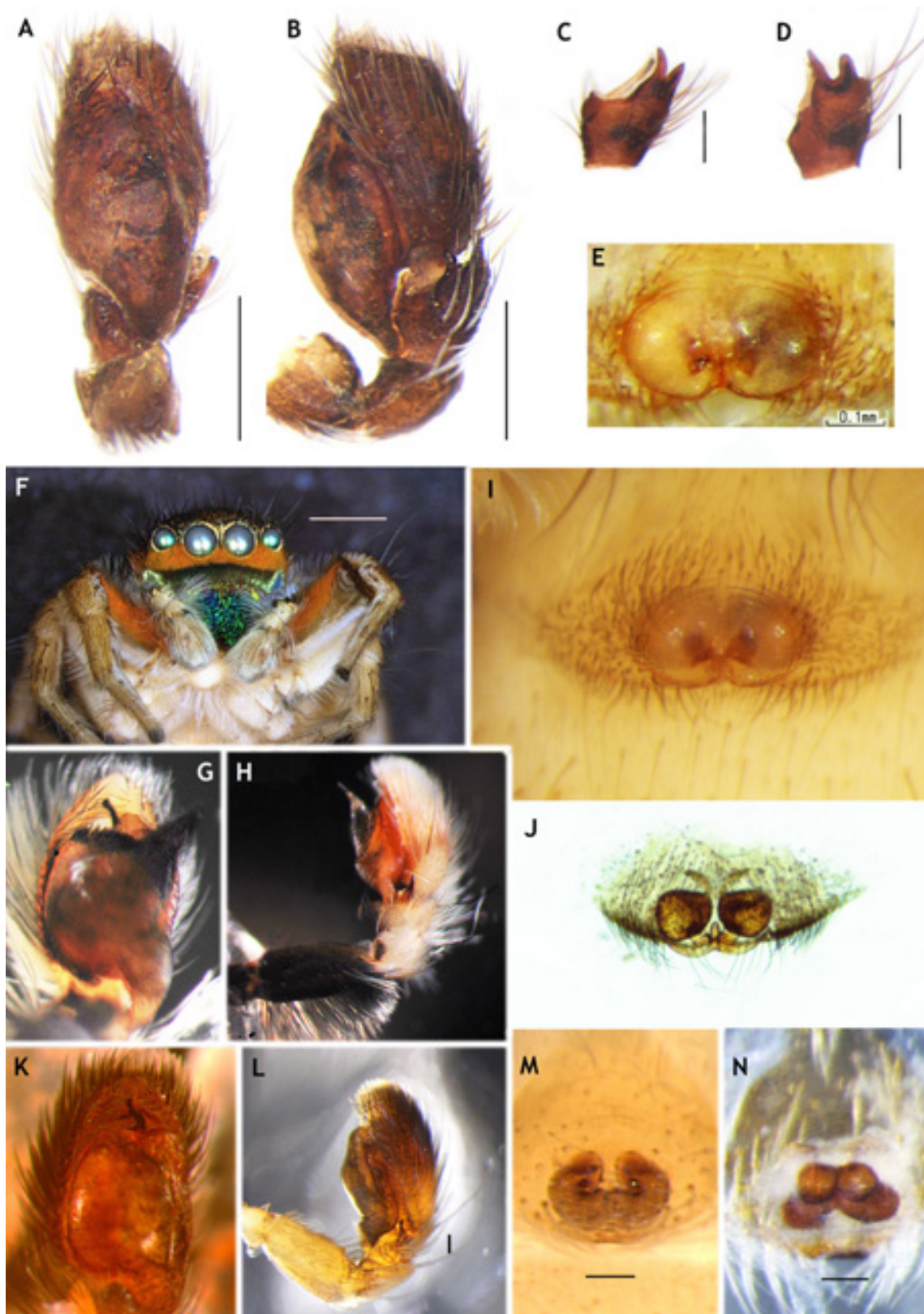
Distribution in India: Gujarat, Maharashtra, Tamil Nadu (new record), and West Bengal.

Genus *Thyene* Simon

***Thyene imperialis* (Rossi, 1846) (Images 29K, L)**

Thyene imperialis Prószyński & Deeleman-Reinhold, 2010: 184, figs. 154–156, 163.

Specimens examined: MCC-ARA208, 1 male, 11.x.2012; MCC-ARA480, 1 female, 21.ii.2013; MCC-ARA499, 1 male, 27.ii.2013; MCC-ARA540–ARA541, 1 male & 1 female, 25.iii.2013, MCC, coll. John Caleb T.D.



Images 19A–D. *Phlegra prasanna*. A—left palp, ventral view | B—same, retrolateral view | C—palpal tibia, ventro-lateral view | D—same, retrolateral view. E–J. *Stenaelurillus lesserti*. E—epigyne of the syntype deposited in NHM Vienna, Austria, ventral view | F—male, front view | G—left palp, ventral view | H—same, retrolateral view | I—epigyne of specimen from MCC, Chennai, ventral view | J—vulva, dorsal view. K–N. *Stenaelurillus metallicus*. K—left palp, ventral view | L—same, retrolateral view | M—epigyne, ventral view | N—vulva, dorsal view. Scale bars: A–B—0.2mm | F—1mm | C–E, L–N—0.1mm. © John Caleb. Image E was kindly provided by Mr. M. Freudenschuss.

Global distribution: Southern Europe, northern and eastern Africa, Middle East to central Asia, China, India, and Indonesia

Distribution in India: Punjab and Tamil Nadu.

Family Scytodidae Blackwall

Genus *Scytodes* Latreille

Scytodes lugubris (Thorell, 1887) (Images 20A–D, 29M)

Dictis lugubris Thorell, 1887: 86.

Scytodes lugubris Rheims, Brescovit & Durán-Barrón, 2007: 105, figs. 20–22, 90–93.

Specimens examined: MCC-ARA233, 1 female, 16.x.2012; MCC-ARA289, 1 female, 5.xi.2012; MCC-ARA323, 1 female, 15.xi.2012, MCC-ARA577, 1 female, 10.vi.2013, MCC, coll. John Caleb T.D.

Global distribution: Tropical Asia. Introduced to Hawaii, Mexico.

Distribution in India: Tamil Nadu (new record).

Family Sicariidae Keyserling

Genus *Loxosceles* Heineken & Lowe

Loxosceles rufescens (Dufour, 1820) (Images 21A–H, 29N)

Loxosceles indrabeles Tikader, 1963: 23, figs. 1a–c.

Loxosceles rufescens Trivedi & Dal, 2019: 2, figs. 1a–h, 2a–f.

Specimens examined: MCC-ARA484–ARA486, 2 females & 1 male, 25.ii.2013, MCC, coll. John Caleb T.D.

Global distribution: Southern Europe, northern Africa to Iran. Introduced to USA, Mexico, Macaronesia, South Africa, India, China, Japan, Korea, Laos, Thailand, Australia, Hawaii.

Distribution in India: Gujarat, Maharashtra, and Tamil Nadu (new record).

Family Sparassidae Bertkau

Genus *Heteropoda* Latreille

Heteropoda venatoria (Linnaeus, 1767) (Image 29O)

Heteropoda venatoria Gravely, 1931: 251, figs. 9C, 10D.

Heteropoda andamanensis Tikader, 1977: 189, figs. 16A–E

Heteropoda nicobarensis Tikader, 1977: 191, figs. 17A–D

Heteropoda andamanensis Sethi & Tikader, 1988: 15, figs. 40–45.

Heteropoda nicobarensis Sethi & Tikader, 1988: 28, figs. 130–134.

Heteropoda venatoria Sethi & Tikader, 1988: 16, figs. 52–57.

Heteropoda venatoria Sen et al., 2015: 57, figs. 289–293, pl. 16.

Heteropoda venatoria Dhali, Saha & Raychaudhuri, 2017: 45, figs. 140–145, pl. 19.

Heteropoda venatoria Tyagi et al., 2019: Supplement, figs. S2.63, S3.7–10.

Specimens examined: MCC-ARA105–ARA106, 2 females, 6.iii.2012; MCC-ARA523, 1 male, 21.iii.2013; MCC-ARA584, 1 female, 10.vi.2013, MCC, coll. John Caleb T.D.

Global distribution: Tropical Asia. Introduced to Pacific Is., North, Central and South America, Macaronesia, Europe, Africa

Distribution in India: Andaman & Nicobar Islands, Assam, Bihar, Kerala, Tamil Nadu, West Bengal, and almost all over India (Sethi & Tikader 1988).

Genus *Olios* Walckenaer

Olios lamarcki (Latreille, 1806) (Image 30A)

Sparassus lamarcki Pocock, 1900: 267.

Olios lamarcki Gravely, 1931: 241, figs. 5B, 6B–C.

Olios lamarcki Caleb, 2018: 339, figs. 1–17.

Specimens examined: MCC-ARA35–ARA36, 2 females, 28.vii.2010; MCC-ARA644, 1 male, 8.viii.2013, MCC, coll. John Caleb T.D.

Global distribution: Madagascar to India, Sri Lanka, Bangladesh.

Distribution in India: Odisha, Tamil Nadu, and West Bengal.

Genus *Palystes* L. Koch

Palystes flavidus Simon, 1897 (Image 30B)

Palystes flavidus Pocock, 1900: 266.

Palystes flavidus Gravely, 1931: 258, figs. 14A–B.

Palystes flavidus Tikader & Sethi, 1990: 178, figs. 38–43.

Specimens examined: MCC-ARA37, 1 female, 30.vii.2010; MCC-ARA232, 1 female, 12.x.2012, MCC-ARA237, 1 male, 16.x.2012; MCC-ARA601, 1 female, 27.vi.2013; MCC-ARA609, 1 male, 18.vii.2013, MCC, coll. John Caleb T.D.

Global distribution: India.

Distribution in India: Bihar, eastern Himalaya, Odisha, Tamil Nadu, Uttar Pradesh, and West Bengal.

Family Tetragnathidae Menge

Genus *Guizygiella* Zhu, Kim and Song

Guizygiella melanocrania (Thorell, 1887) (Images 30C, 33D)

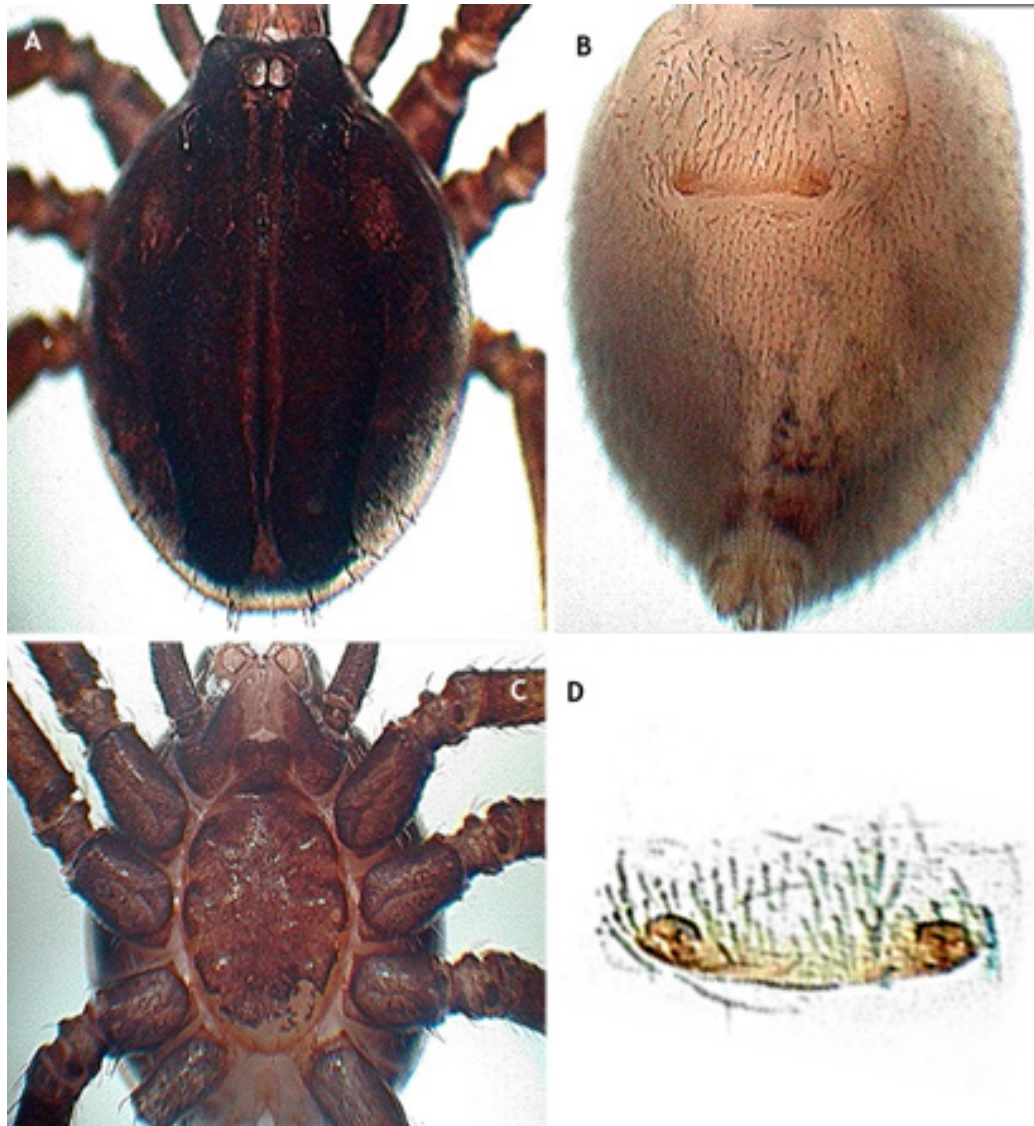
Zygiella melanocrania Tikader & Bal, 1980: 243, figs. 1–4.

Zygiella melanocrania Tikader, 1982: 215, figs. 419–422.

Specimens examined: MCC-ARA795, 1 female, 22.iv.2014, MCC, coll. John Caleb T.D.

Global distribution: India to China, Laos.

Distribution in India: Odisha, Madhya Pradesh, and



Images 20A–D. *Scytodes lugubris*. A—carapace, dorsal view | B—abdomen, ventral view | C—sternum and mouth parts, ventral view | D—vulva, dorsal view. Images not to scale. © John Caleb

Tamil Nadu (new record).

Genus *Leucauge* White

Leucauge decorata (Blackwall, 1864) (Images 30D, 33C)

Tetragnatha decorata Blackwall, 1864: 44.

Nephila angustata Stoliczka, 1869: 241, pl. 20, fig. 7.

Leucauge decorata Simon, 1906: 282.

Leucauge decorata Gravely, 1921b: 451, 454, figs. 8d–e.

Leucauge decorata Tikader, 1970: 41, figs. d–f.

Leucauge decorata Gajbe, 2007: 509, figs. 263–265.

Leucauge decorata Sen et al., 2015: 102, figs. 595–600, pl. 21.

Specimens examined: MCC-ARA45, 1 female, 9.i.2011;

MCC-ARA93, 1 female, 24.ii.2012; MCC-ARA718, 1 male, 03.xii.2013, MCC, coll. John Caleb T.D.

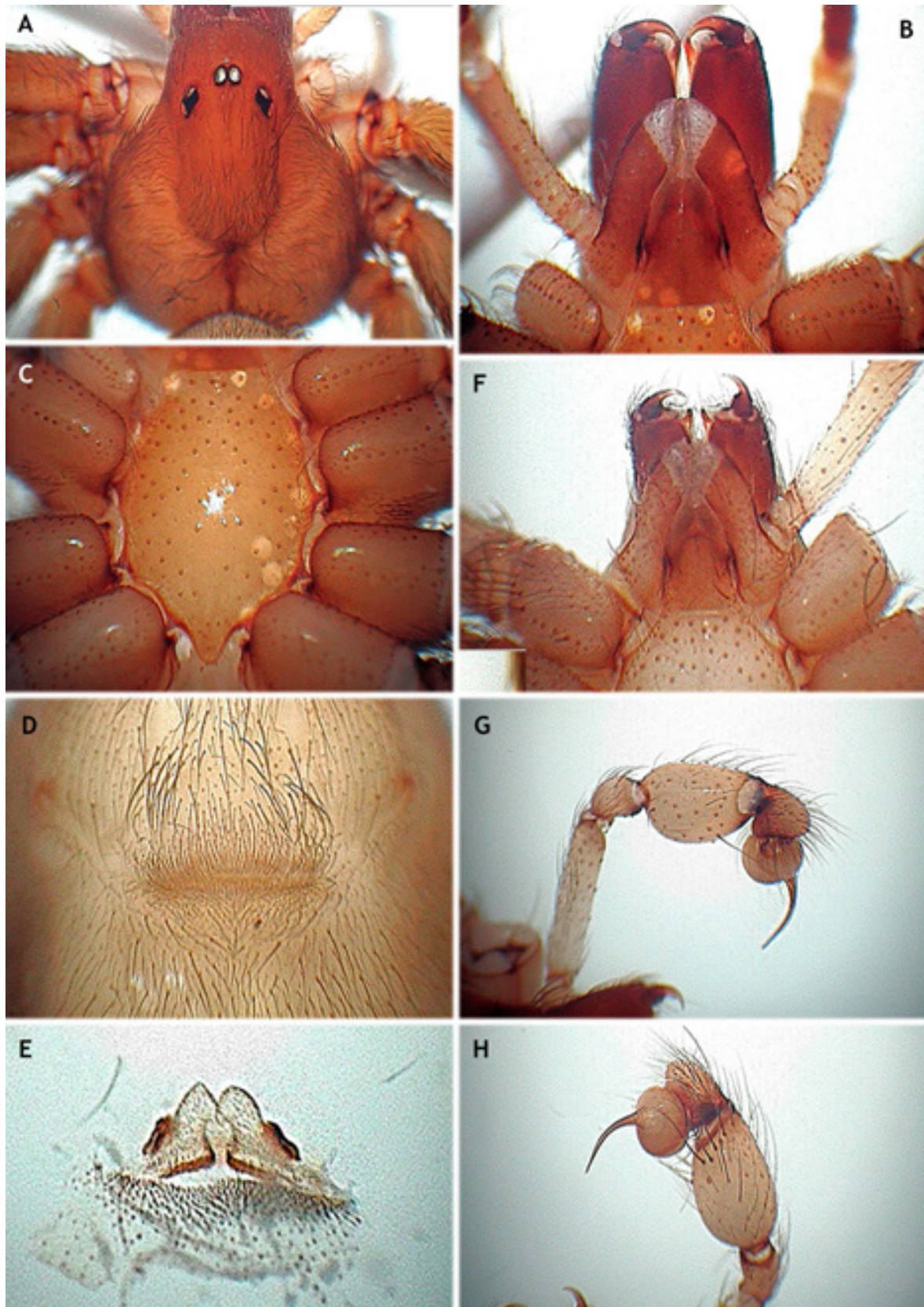
Global distribution: Pakistan, India, Bangladesh to Thailand, Philippines, China, Japan, Indonesia, Papua New Guinea, and Australia.

Distribution in India: Assam, Bihar, Gujarat, Karnataka, Kerala, Maharashtra, Meghalaya, Odisha, Sikkim, Tamil Nadu, Uttar Pradesh, and West Bengal.

Genus *Meta* C.L. Koch

?*Meta* sp. (Image 30E)

Specimens examined: MCC-ARA281, 1 female, 05.xi.2012; MCC-ARA481, 1 female, 21.ii.2013, MCC, coll. John Caleb T.D.



Images 21A–H. *Loxosceles rufescens*. A–E. Female. A—carapace, dorsal view | B—chelicerae, labium and endites | C—sternum | D—epigynal field, ventral view | E—vulva, dorsal view. F–H. male. F—chelicerae, labium and endites | G—left palp, prolateral view | H—same, retrolateral view.. Images not to scale. © John Caleb

Distribution in India: Tamil Nadu.

Genus *Tetragnatha* Latreille

***Tetragnatha mandibulata* Walckenaer, 1841 (Image 30F)**

Tetragnatha mandibulata Pocock, 1900: 215, fig. 67.

Tetragnatha mandibulata Gravely, 1921b: 429, 441 figs. 1d, 3d–e.

Specimens examined: MCC-ARA270, 1 female, 26.x.2012; MCC-ARA309, 1 female, 8.xi.2012; MCC-ARA611, 1 male, 18.vii.2013, MCC, coll. John Caleb T.D.

Global distribution: Central America, Caribbean, Guyana, Brazil, West Africa, India to Philippines, and Australia.

Distribution in India: Assam, Bihar, Kerala, Karnataka, Odisha, Tamil Nadu, and West Bengal.

Family Theraphosidae Thorell

Genus *Sahydroaraneus* Mirza & Sanap

***Sahydroaraneus* sp. (Images 22A–F, 30G)**

Specimens examined: MCC-ARA422, 1 female, 21.i.2013; MCC-ARA428, 1 female, 29.i.2013; MCC-ARA509, 1 female, 11.iii.2013; WILD-13-ARA-1236, 1 female, 01.viii.2013, MCC, coll. John Caleb T.D.

Distribution in India: Tamil Nadu.

Family Theridiidae Sundevall

Genus *Argyrodes* Simon

***Argyrodes argentatus* O. Pickard-Cambridge, 1880 (Image 30H)**

Argyrodes argentatus Javed, Srinivasulu & Tampal, 2010: 982, figs. 4–6.

Specimens examined: MCC-ARA103, 1 female, 06.iii.2012; MCC-ARA551, 1 female, 07.v.2013, MCC, coll. John Caleb T.D.

Global distribution: India, Indonesia to China. Introduced to Hawaii.

Distribution in India: Andhra Pradesh, Kerala, and Tamil Nadu (new record).

Genus *Ariamnes* Thorell

***Ariamnes* sp. (Image 30I)**

Specimens examined: MCC-ARA524, 1 female, 21.iii.2013, MCC, coll. John Caleb T.D.

Distribution in India: Tamil Nadu.

Genus *Meotipa* Simon

***Meotipa multuma* Murthappa, Malamel, Prajapati, Sebastian & Venkateshwarlu, 2017 (Image 30J)**

Meotipa multuma Murthappa et al., 2017: 592, figs. 3A–E, 4E–F.

Specimens examined: MCC-ARA234, 1 female, 16.x.2012; MCC-ARA423, 1 female, 23.i.2013, MCC-ARA462, 1 female, 13.ii.2013; MCC-ARA544, 1 male,

25.iii.2013, MCC, coll. John Caleb T.D.

Global distribution: India.

Distribution in India: Karnataka and Tamil Nadu (new record).

Genus *Nihonhimea* Yoshida

***Nihonhimea mundula* (L. Koch, 1872) (Images 30K, 33E)**

Achaearanea mundula Chrysanthus, 1963: 741, figs. 76–77, 83.

Parasteatoda mundula Saaristo, 2006: 69, figs. 55–59.

Specimens examined: MCC-ARA100, 1 female, 29.ii.2012; MCC-ARA331, 1 female, 23.xi.2012; MCC-ARA460, 1 female, 13.ii.2013, MCC, coll. John Caleb T.D.

Global distribution: Seychelles, India to New Caledonia.

Distribution in India: Tamil Nadu (new record).

Genus *Rhomphaea* L. Koch

***Rhomphaea projiciens* O. Pickard-Cambridge, 1896 (Image 30L)**

Argyrodes projiciens Patel, 1973: 152.

Rhomphaea projiciens Srinivasulu et al., 2013: 4486.

Specimens examined: MCC-ARA510, 1 female, 11.iii.2013, MCC, coll. John Caleb T.D.

Global distribution: USA to Argentina. Introduced to India.

Distribution in India: Andhra Pradesh and Tamil Nadu (new record).

Family Thomisidae Sundevall

Genus *Bomis* L. Koch

***Bomis khajuriae* Tikader, 1980 (Image 30M)**

Bomis khajuriae Tikader, 1980a: 141.

Specimens examined: MCC-ARA612, 1 female, 18.vii.2013, MCC, coll. John Caleb T.D.

Global distribution: India.

Distribution in India: Madhya Pradesh and Tamil Nadu (new record).

Genus *Henriksenia* Lehtinen

***Henriksenia hilaris* (Thorell, 1877) (Image 30N)**

Misumenoides deccanes Tikader, 1965: 279, figs. 3a–b.

Misumenoides shulli Tikader, 1965: 280, figs. 4a–b.

Diaea jaintious Tikader, 1966: 59, figs. 5a–b.

Diaea jaintious Tikader, 1968: 108, figs. 4–5.

Diaea jaintious Tikader, 1971: 44, figs. 13C–D.

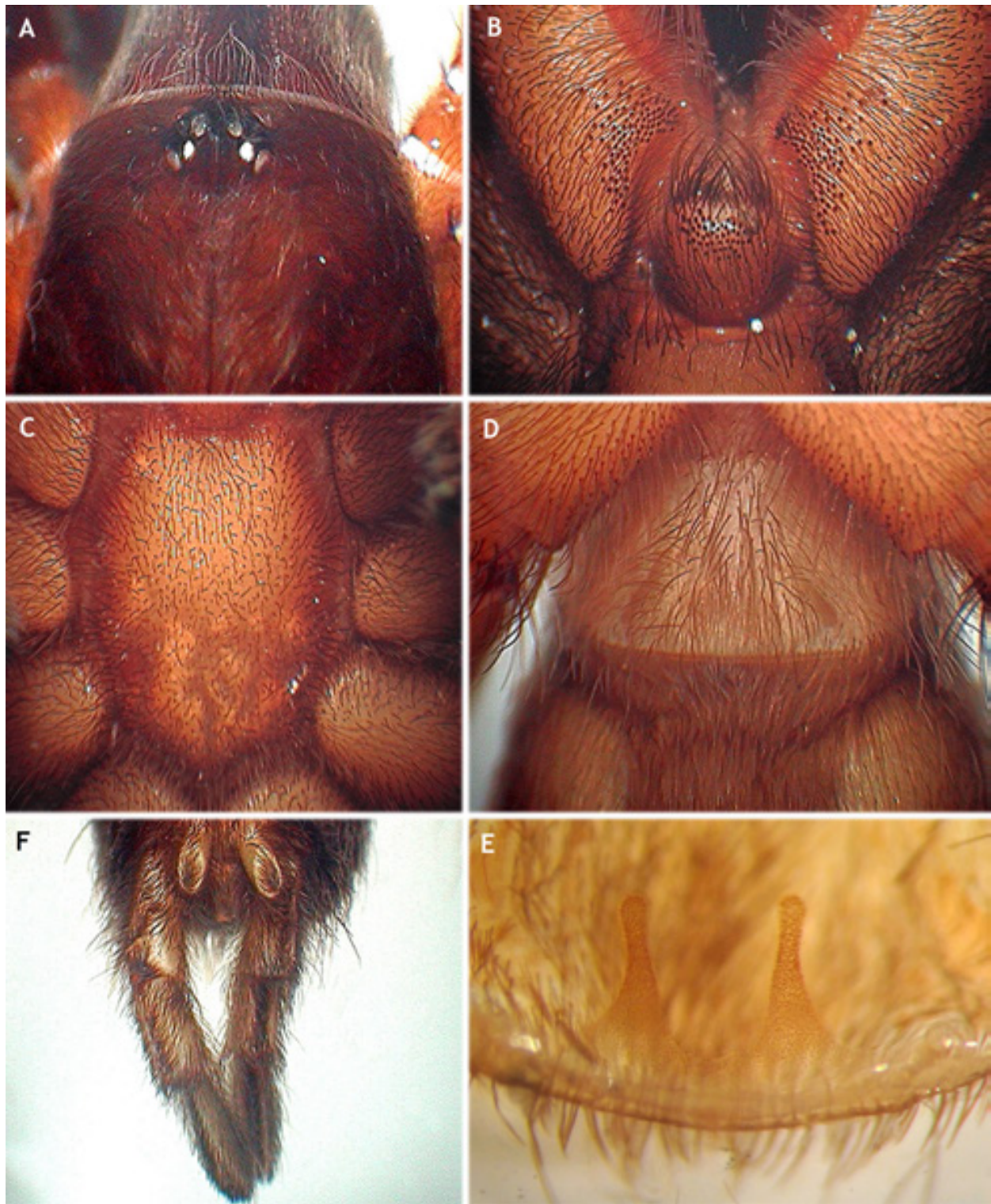
Misumenoides deccanes Tikader, 1971: 59, figs. 16J–K.

Misumenoides shulli Tikader, 1971: 59, figs. 16R–S.

Misumena decorata Tikader, 1980a: 103, figs. 145–146.

Diaea jaintious Tikader, 1980a: 105, figs. 147–148.

Misumenoides deccanes Tikader, 1980a: 152, figs. 216–217.



Images 22A–F. *Sahydroaraneus* sp. A—carapace, dorsal view | B—labium and endites | C—sternum | D—epigynal field, ventral view | E—spinnerets, ventral view | F—vulva, dorsal view. Images not to scale. © John Caleb except Image E which was kindly provided by Dr. M. Siliwal.

Misumenoides shulli Tikader, 1980a: 154, figs. 218–219.

Specimens examined: MCC-ARA112, 1 female, 15.iii.2012, MCC, coll. John Caleb T.D.

Global distribution: India to Philippines, Indonesia (Sulawesi), and New Guinea.

Distribution in India: Maharashtra, Meghalaya, Tamil Nadu, and Uttar Pradesh.

Genus *Indoxysticus* Benjamin

Indoxysticus minutus (Tikader, 1960) (Image 300)

Xysticus minutus Tikader, 1960: 173, figs. 1a–b.

Xysticus minutus Tikader, 1968: 113, figs. 18–20.

Xysticus minutus Tikader, 1971: 50, figs. 14K–M.

Xysticus minutus Tikader, 1980a: 120, figs. 165–167.

Xysticus minutus Tikader & Biswas, 1981: 80, figs. 143–144.

Xysticus minutes Gajbe, 2007: 444, figs. 44–46.

Indoxysticus minutus Benjamin & Jaleel, 2010: 162, figs. 3–4, 8–15.

Xysticus minutus Sen et al., 2015: 67, figs. 364–368, pl. 17.

Specimens examined: MCC-ARA282, 1 female, 05.xi.2012, MCC, coll. John Caleb T.D.

Global distribution: India and Sri Lanka

Distribution in India: Gujarat, Kerala, Maharashtra, Meghalaya, Tamil Nadu (new record), and West Bengal.

Genus *Pagida* Simon

Pagida salticiformis (O. Pickard-Cambridge, 1883) (Images 23A–B, 31A)

Palaephatus salticiformis O. Pickard-Cambridge, 1883: 362, pl. 37, fig. 7.

Pagida salticiformis Simon, 1895: 1000, figs. 1064–1065.

Pagida salticiformis Benjamin & Clayton, 2016: 361, figs. 4–16, 18–30, 34–37.

Specimens examined: MCC-ARA95, 1 female, 28.ii.2012; MCC-ARA741, 1 male, 16.xii.2013, MCC, coll. John Caleb T.D.

Global distribution: India (new record) and Sri Lanka.

Distribution in India: Tamil Nadu.

Genus *Runcinia* Simon

Runcinia insecta (L. Koch, 1875) (Images 23C–F, 31B)

Thomisus cherapunjeus Tikader, 1966: 53, figs. 1a–b.

Thomisus cherapunjeus Tikader, 1968: 104, figs. 13–14.

Thomisus cherapunjeus Tikader, 1971: 24, figs. 8K–L.

Runcinia chauhani Sen & Basu, 1973: 103, figs. 1A–B.

Runcinia chauhani Tikader, 1980a: 60, figs. 89–90.

Thomisus cherapunjeus Tikader, 1980a: 54, figs. 82–83.

Thomisus cherapunjeus Tikader & Biswas, 1981: 78, figs. 139–140.

Thomisus cherapunjeus Sunil Jose & Sebastian, 2001: 184, figs. 2A–B.

Thomisus cherapunjeus Gajbe, 2007: 440, figs. 40–41.

Specimens examined: MCC-ARA367, 1 female, 12.xii.2012; MCC-ARA483, 1 female, 21.ii.2013; MCC-ARA545, 1 female 25.iii.2013; MCC-ARA716, 1 female 03.xii.2013, MCC, coll. John Caleb T.D.

Global distribution: Africa and Asia. Introduced to Australia.

Distribution in India: Kerala, Madhya Pradesh, Meghalaya, and Tamil Nadu.

Genus *Synema* Simon

Synema decoratum Tikader, 1960 (Image 31C)

Synema decorata Tikader, 1960: 174, figs. 2a–c.

Synema decorata Tikader, 1971: 54, figs. 15J–M.

Synema decorata Tikader, 1980a: 136, figs. 192–195.

Synema decorata Gajbe, 2007: 447, figs. 50–53.

Specimens examined: MCC-ARA33, 1 female, 20.vii.2010; MCC-ARA501, 1 female, 27.ii.2013, MCC, coll. John Caleb T.D.

Global distribution: India and China.

Distribution in India: Karnataka, Maharashtra, Tamil Nadu (new record), and West Bengal.

Genus *Thomisus* Walckenaer

Thomisus pugilis Stoliczka, 1869 (Image 31D)

Thomisus pugilis Stoliczka, 1869: 225, pl. 19, fig. 3.

Thomisus pugilis Tikader, 1971: 21.

Thomisus pugilis Tikader, 1980a: 48, figs. 71–72.

Thomisus pugilis Tikader & Biswas, 1981: 76, figs. 135–136.

Thomisus pugilis Gajbe, 2007: 439.

Specimens examined: MCC-ARA134–ARA135, 1 female & 1 male, 26.iii.2012; MCC-ARA268, 1 female, 26.x.2012, MCC, coll. John Caleb T.D.

Global distribution: India.

Distribution in India: Punjab, Tamil Nadu (new record), and West Bengal.

Thomisus sp. 1 (Image 31E)

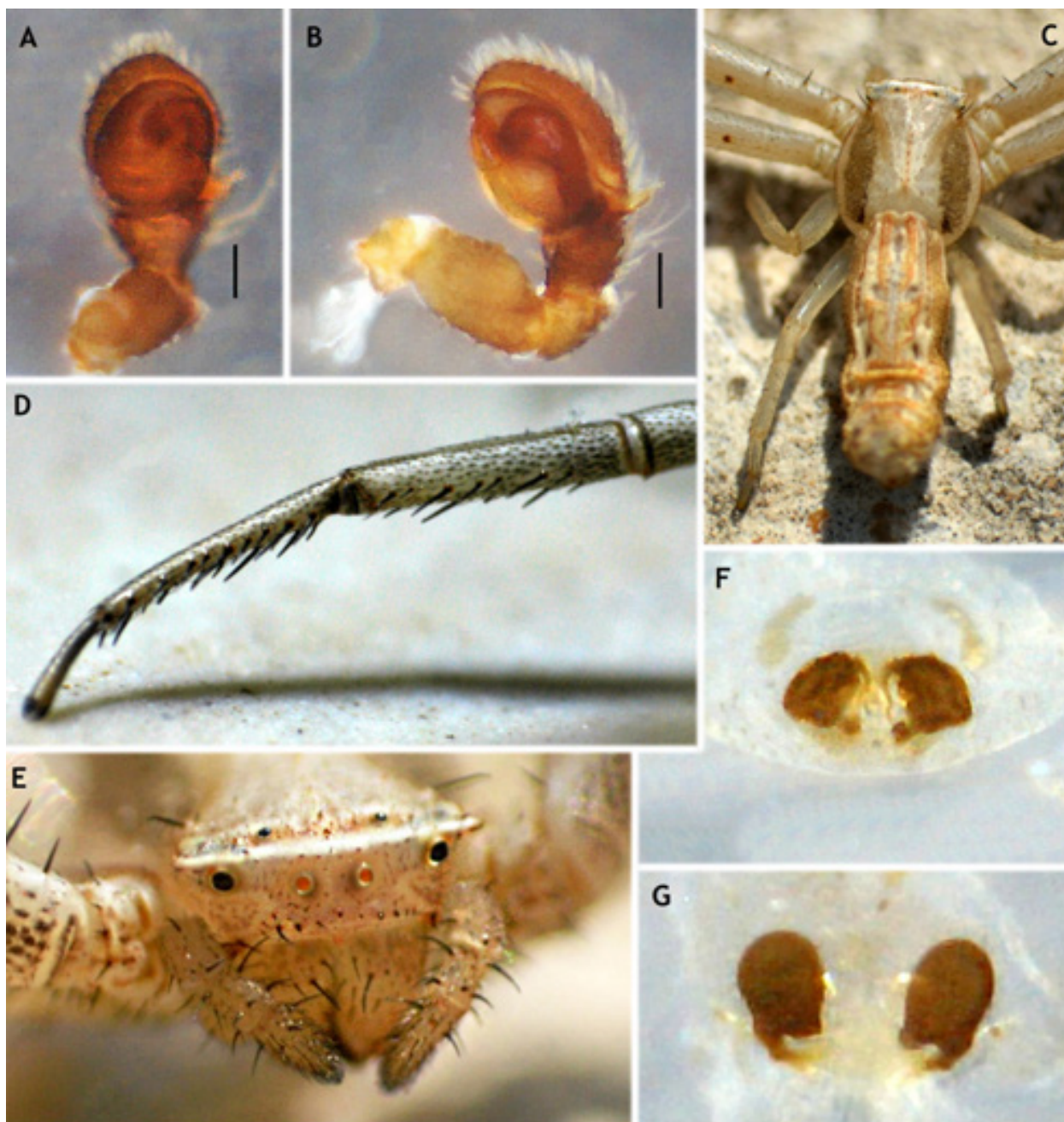
Specimens examined: MCC-ARA131, 1 female, 26.iii.2012, MCC, coll. John Caleb T.D.

Distribution in India: Tamil Nadu.

Thomisus sp. 2 (Image 31F)

Specimens examined: MCC-ARA271, 1 female, 26.x.2012, MCC, coll. John Caleb T.D.

Distribution in India: Tamil Nadu.



Images 23A–B. *Pagida salticiformis*. A—left palp, ventral view | B—same, retrolateral view. C–F. *Runcinia insecta*. C—dorsal view | D—right leg I, prolateral view | E—carapace, front view | F—vulva, dorsal view | G—*Uloborus* sp.vulva, dorsal view. Scale bars: A–B—0.1mm. © John Caleb

Genus *Tmarus* Simon

Tmarus sp. (Image 31G)

Specimens examined: MCC-ARA317, 1 female, 14.xi.2012, MCC, coll. John Caleb T.D.

Distribution in India: Tamil Nadu.

30.vii.2010; MCC-ARA91, 1 male, 15.ii.2012; MCC-ARA110, 1 female, 15.iii.2012; MCC-ARA136, 1 female, 28.iii.2012; MCC-ARA461, 1 female, 13.ii.2013, MCC, coll. John Caleb T.D.

Distribution in India: Tamil Nadu.

Family Uloboridae Thorell

Genus *Uloborus* Latreille

Uloborus sp. (Images 23G, 31H, 33F)

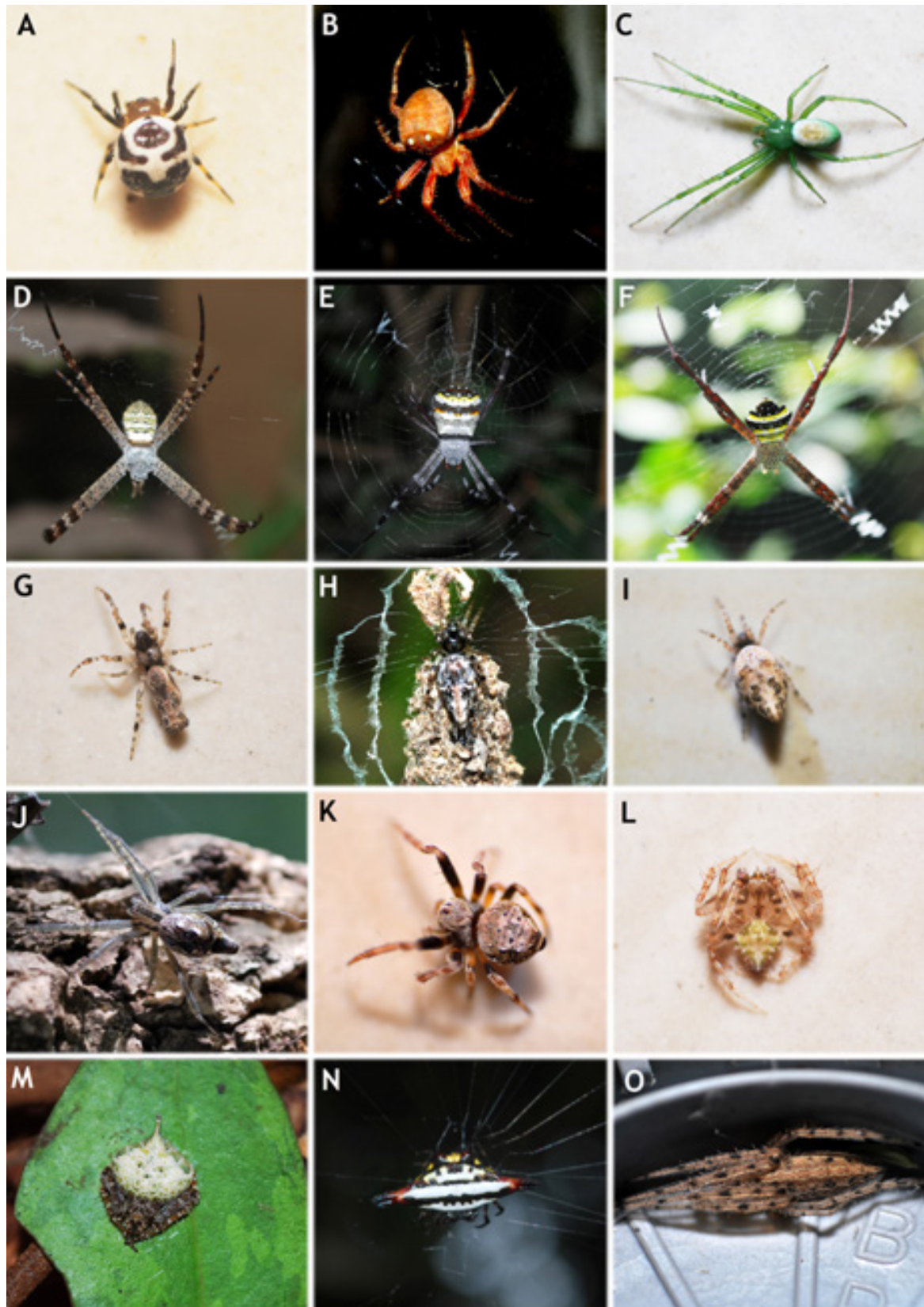
Specimens examined: MCC-ARA41, 1 female,

Family Zodariidae Thorell

Genus *Hermippus* Simon

Hermippus sp. (Images 31I)

Specimens examined: MCC-ARA578, 1 female,



Images 24A–O. General habitus. A—*Anepsion maritatum* (♀) | B—*Araneus bilunifer* (♀) | C—*Araneus viridisomus* (♀) | D—*Argiope aemula* (♀) | E—*Argiope anasuja* (♀) | F—*Argiope pulchella* (♀) | G—*Cyclosa confragra* (♀) | H—*Cyclosa hexatuberculata* (♀) | I—*Cyclosa neilensis* (♀) | J—*Cyrtophora cicatrosa* (♀) | K—*Eriovixia excelsa* (♀) | L—*Eriovixia laglaizei* (♂) | M—*Eriovixia laglaizei* (♀) | N—*Gasteracantha geminata* (♀) | O—*Larinia chloris* (♀). © John Caleb except Image B.

10.vi.2013; MCC-ARA794, 1 male, 22.iv.2014, MCC, coll. John Caleb T.D.

Distribution in India: Tamil Nadu.

Genus *Tropizodium* Jocqué & Churchill

Tropizodium sp. (Images 31J)

Specimens examined: MCC-ARA522, 1 female, 21.iii.2013, MCC, coll. John Caleb T.D.

Distribution in India: Tamil Nadu.

RESULTS AND DISCUSSION

The present study details the diversity of spiders from the MCC campus, Tambaram, Tamil Nadu, India. A total of 25 families, 84 genera and 108 species were recorded during the study, amongst which, 10 species are new to science, along with 31 being recorded for the first time from the state of Tamil Nadu (Table 2).

Of the 60 families recorded in the Indian region, 25 are found in the MCC campus. This represents 41% of the total families recorded in India. Salticidae was the most diverse with 28 species under 22 genera. It is followed by Araneidae with 19 species belonging to 11 genera. Thomisidae (10 species), Lycosidae (seven species), Oxyopidae (five species) and Theridiidae (five species) (Figure 1) constitute other major families. Among the 469 genera recorded from the Indian region, 84 (18%) have been recorded from MCC. Maximum generic diversity was found in Salticidae (22 genera) followed by

Araneidae (11), Thomisidae (eight), Lycosidae (five) and Theridiidae (five) (Figure 1). The 108 species correspond to 5% of the total Indian diversity (1830 species) and 47% of the diversity known from Tamil Nadu (226 species) (Karthikeyani et al. 2017). Twenty species (18%) are endemic to India, of which, nine are from Salticidae, three from Araneidae, two from Gnaphosidae, and one each from Corinnidae, Idiopidae, Lycosidae, Philodromidae, Sparassidae and Theridiidae. Eleven species are endemic to the Indo-Sri Lankan region (Table 2). Guild structure analysis revealed seven feeding guilds (Uetz et al. 1999) (Table 1). Dominant feeding guild is constituted by the stalkers (33%) followed by orb web weavers (24%), ground runners (19%), ambushers (12%), scattered line weavers (9%), foliage runners (8%) and sheet web builders (3%)

Table 1. Different functional guild structure of spiders found in MCC campus.

Guilds	Families
Orb web weavers	Araneidae, Tetragnathidae, Uloboridae
Ambushers	Deinopidae, Philodromidae, Thomisidae
Stalkers	Oxyopidae, Salticidae
Scattered line weavers	Pholcidae, Theridiidae
Sheet web weavers	Eresidae, Oecobiidae
Foliage runners	Clubionidae, Cheiracanthidae, Hersiliidae, Scytodidae, Sparassidae
Ground runners	Corinnidae, Gnaphosidae, Idiopidae, Liocranidae, Lycosidae, Sicariidae, Theraphosidae, Zodariidae

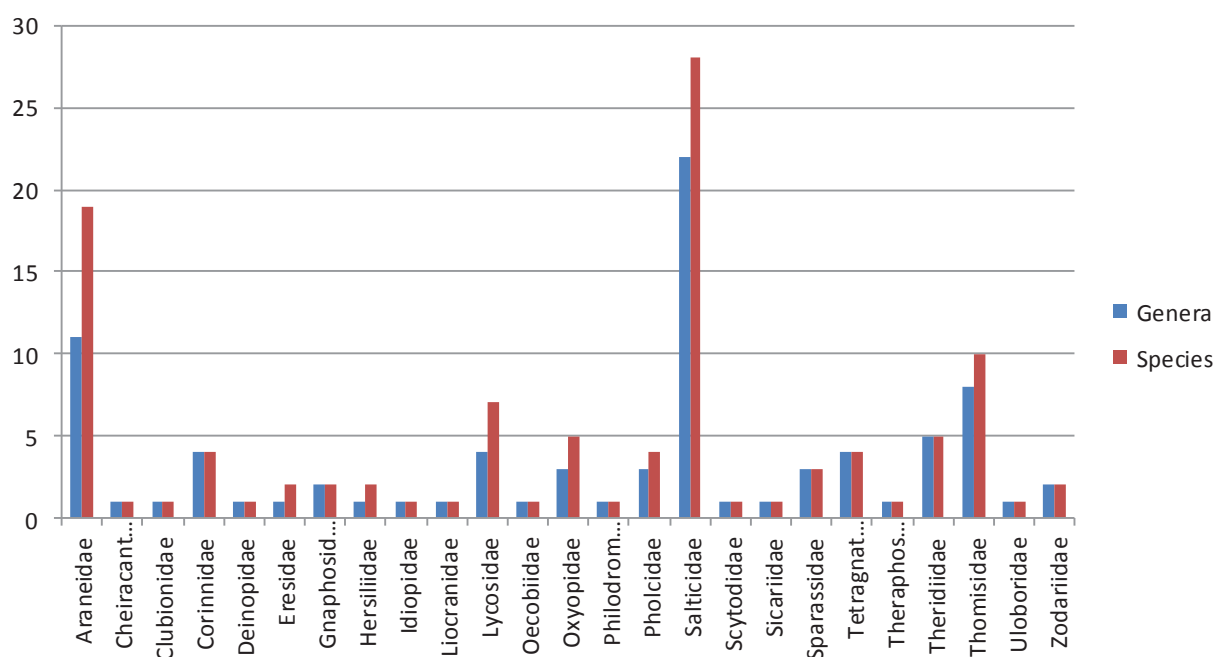
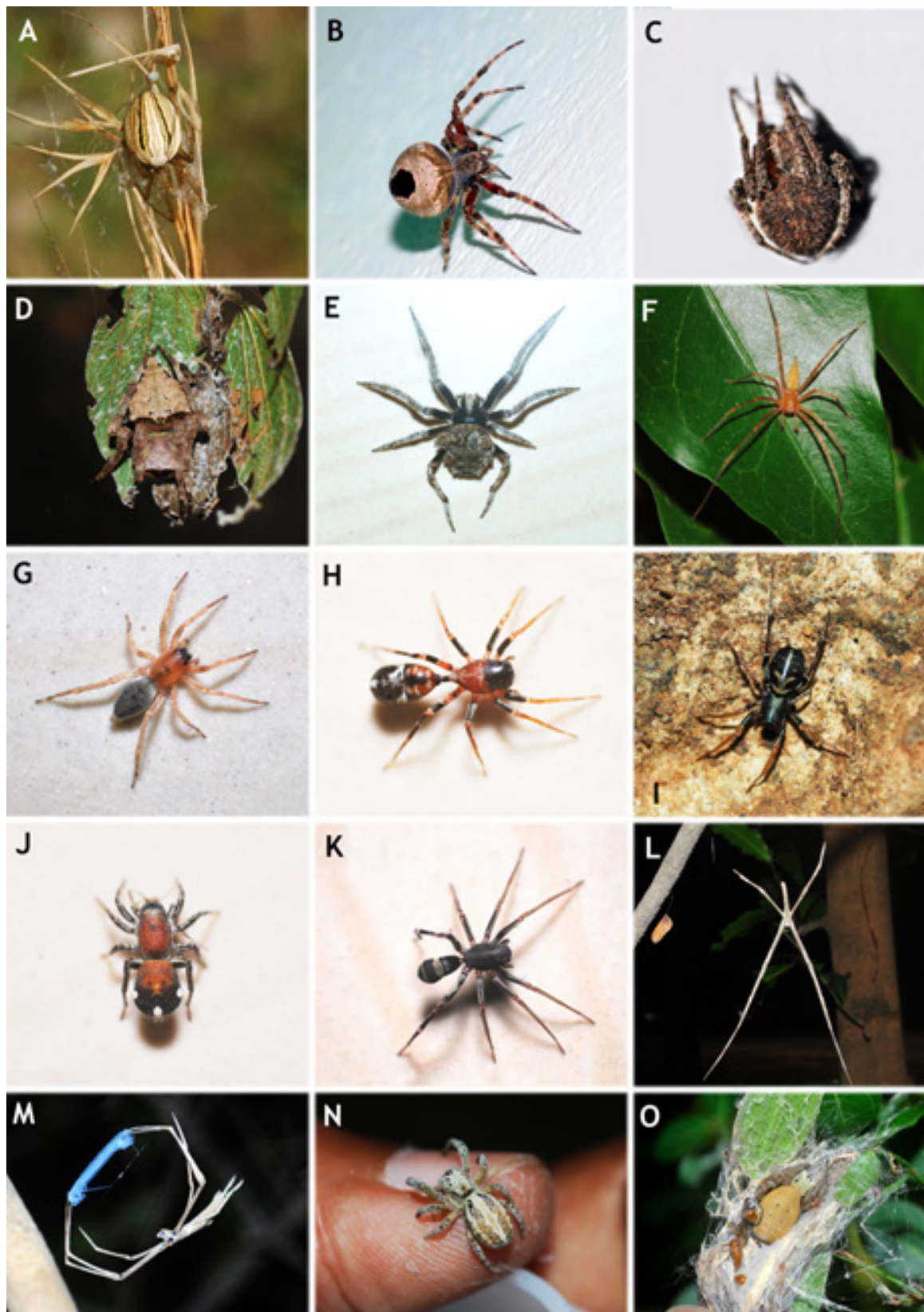


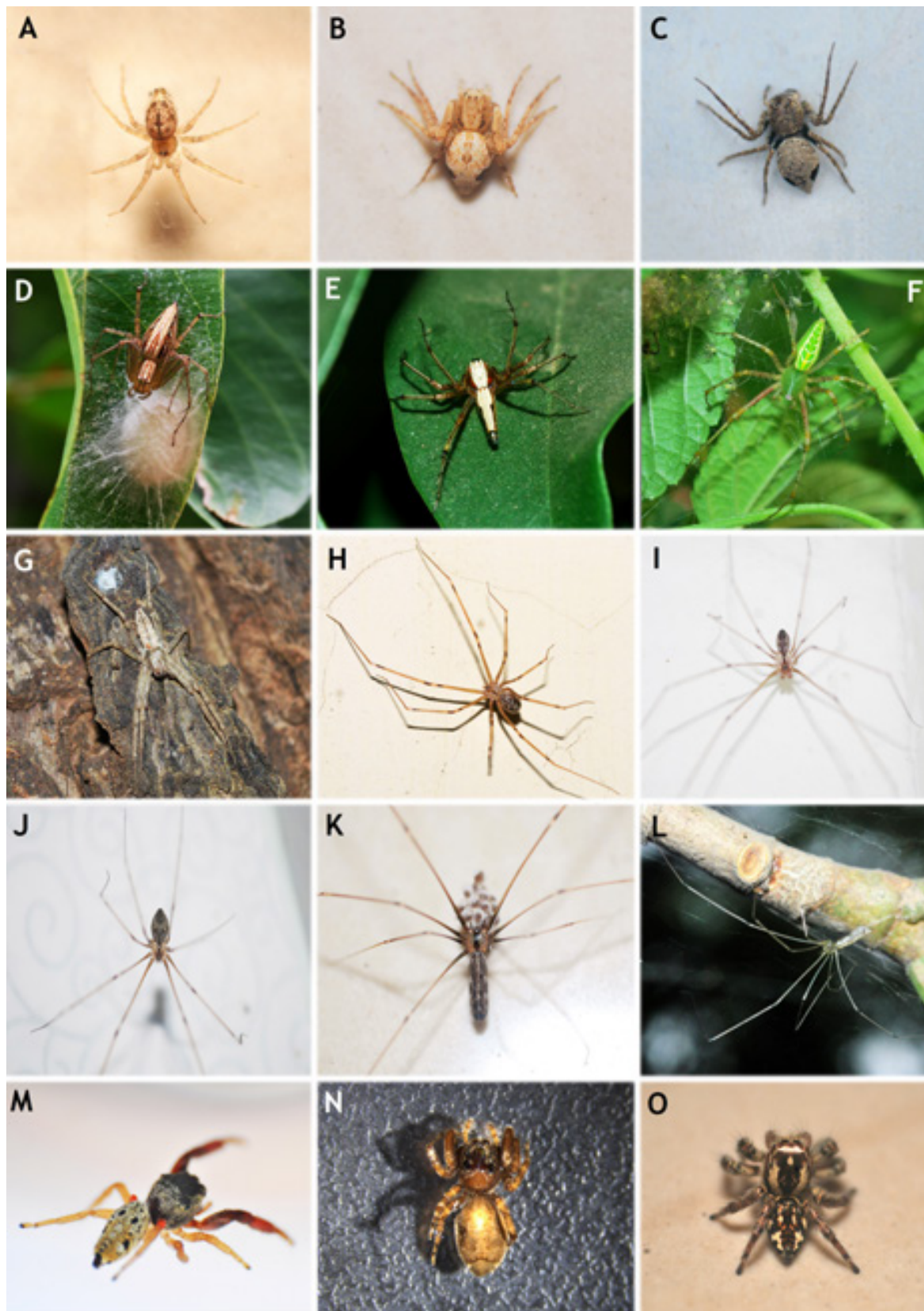
Figure 1. The number of genera and species representing each family.



Images 25A–O. General habitus. A—*Neoscona molemensis* (♀) | B—*Neoscona mukerjei* (♀) | C—*Neoscona vigilans* (♀) | D—*Parawixia dehaani* (♀) | E—*Polys nagpurensis* (♀) | F—*Cheiracanthium* sp. (♀) | G—*Clubiona filicata* (♀) | H—*Aetius decollatus* (♀) | I—*Cambalida flavipes* (♀) | J—*Coenoptychus pulcher* (♀) | K—*Corinnomma severum* (♀) | L—*Asianopsis liukuensis* (♂) | M—*Asianopsis liukuensis* (♀) | N—*Stegodyphus sarasinorum* (♀) | O—*Stegodyphus tibialis* (♀). © John Caleb



Images 26A–O. General habitus. A—*Poecilochroa tridotus* (♀) | B—*Zelotes tambaramensis* (♀) | C—*Hersilia savignyi* (♀) | D—*Hersilia tibialis* (♀) | E—*Idiops constructor* (♂) | F—*Idiops constructor* (♀) | G—*Oedignatha scrobiculata* (♀) | H—*Draposa atropalpis* (♀) | I—*Hippasa greenalliae* (♀) | J—*Hippasa madraspatana* (♀) | K—*Lycosa bistrata* (♀) | L—*Lycosa indagatrix* (♀) | M—*Wadicosa fidelis* (♀) | N—*Wadicosa quadrifera* (♂) | O—*Wadicosa quadrifera* (♀). © John Caleb



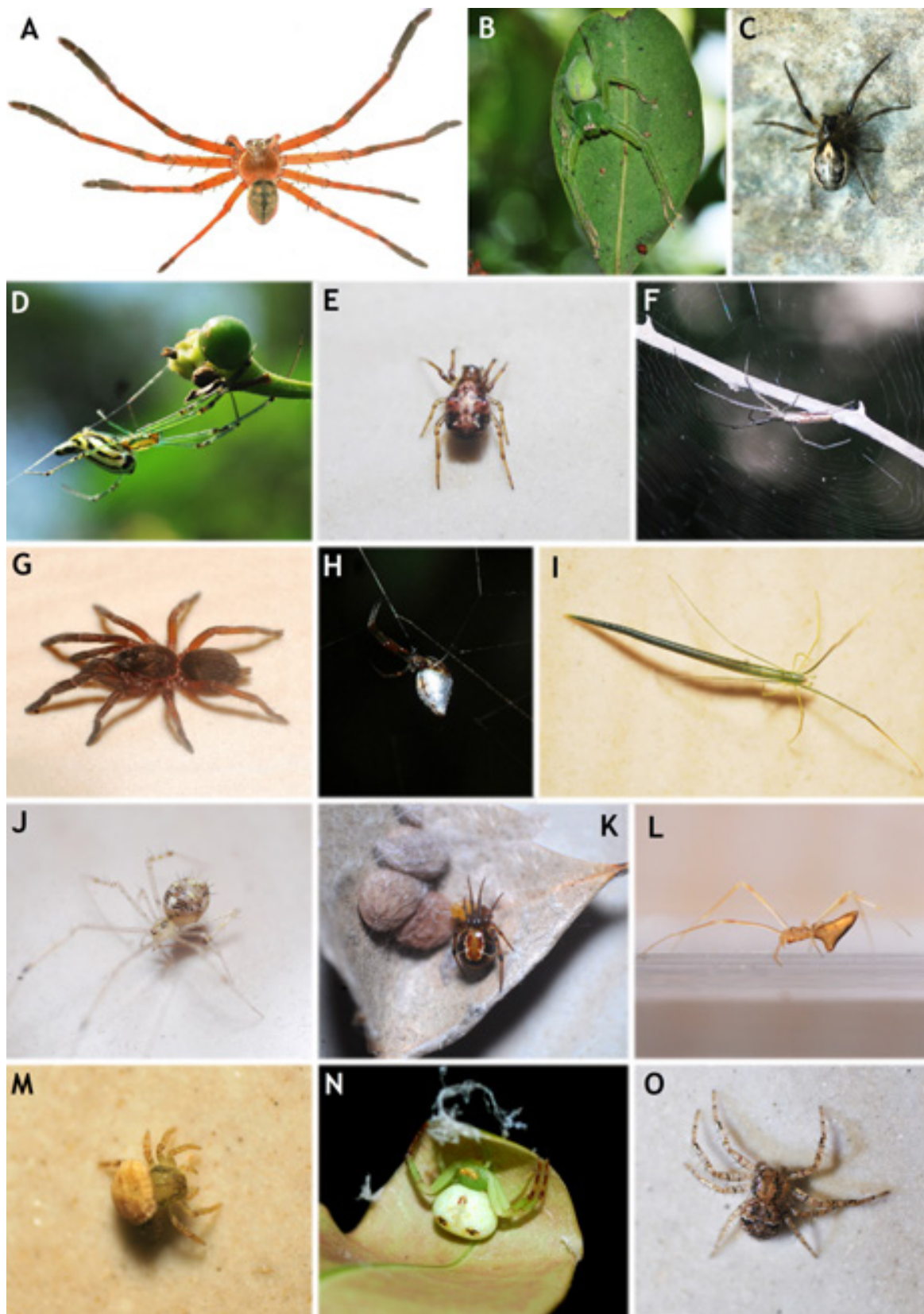
Images 27A–O. General habitus. A—*Oecobius putus* (♀) | B—*Hamataliwa* sp. 1 (♀) | C—*Hamataliwa* sp. 2 (♀) | D—*Oxyopes hindostanicus* (♀) | E—*Oxyopes* sp. (♀) | F—*Peucetia viridana* (♀) | G—*Tibellus elongatus* (♀) | H—*Artema atlanta* (♀) | I—*Crossopriza lyoni* (♂) | J—*Crossopriza lyoni* (♀) | K—*Pholcus phalangioides* (♀) | L—*Pholcus* sp. (♀) | M—*Bianor balius* (♀) | N—*Brettus* cf. *adonis* (♀) | O—*Carrhotus viduus* (♀).
© John Caleb



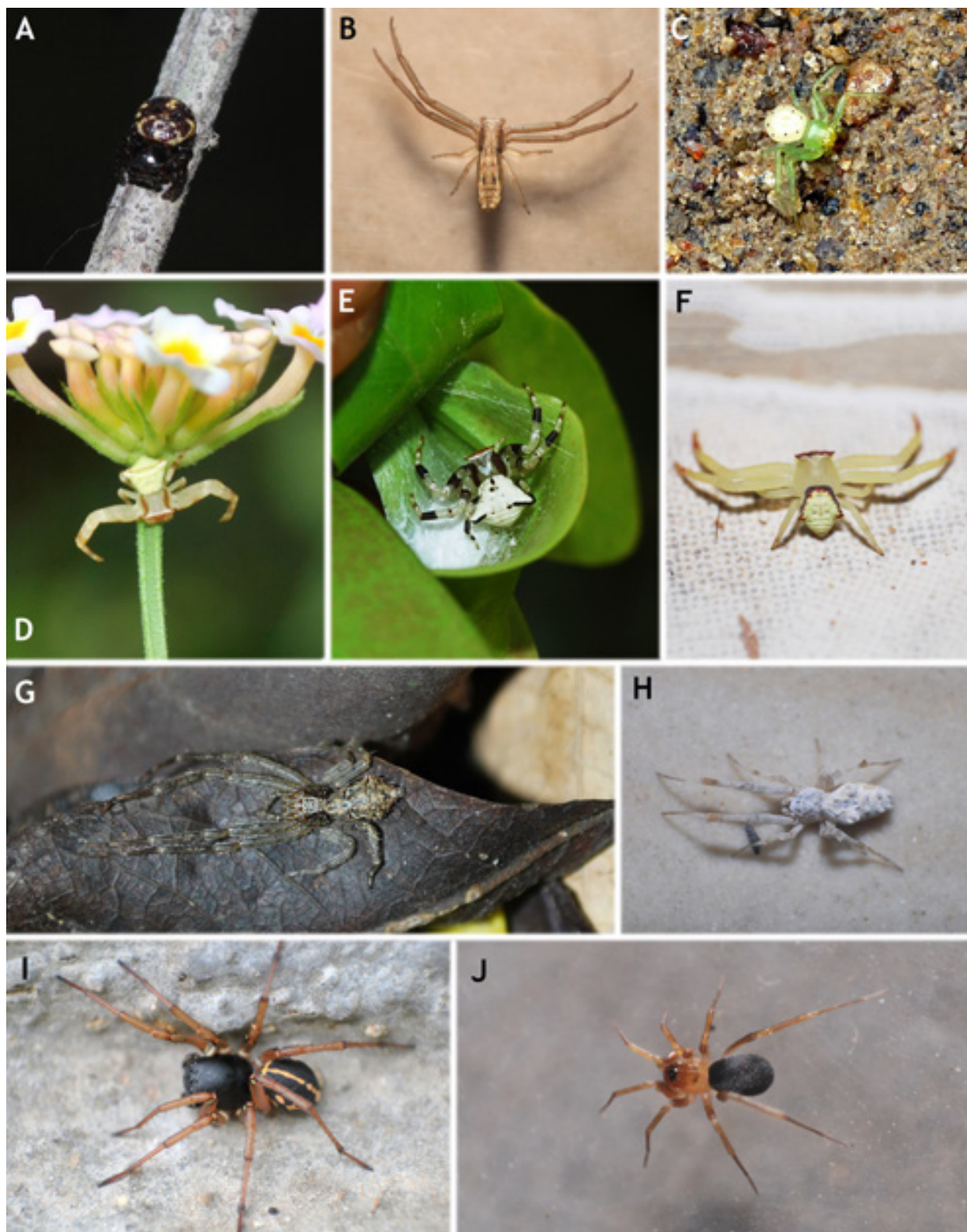
Images 28A–O. General habitus. A—*Chrysilla volupe* (♂) | B—*Cyrba ocellata* (♂) | C—*Harmochirus exaggeratus* (♀) | D—*Harmochirus zabaki* (♂) | E—*Hasarius adansonii* (♂) | F—*Hyllus manu* (♂) | G—*Hyllus manu* (♀) | H—*Hyllus semicupreus* (♂) | I—*Langona albolinea* (♂) | J—*Langona tigrina* (♀) | K—*Menemerus bivittatus* (♂) | L—*Menemerus bivittatus* (♀) | M—*Myrmaplata plataleoides* (♂) | N—*Myrmarachne melanocephala* (♂) | O—*Phanuelus gladstone* (♂). © John Caleb



Images 29A–O. General habitus. A—*Phintella vittata* (♀) | B—*Phintelloides jesudasi* (♂) | C—*Langona davidi* (♂) | D—*Phlegma prasanna* (♂) | E—*Plexippus paykulli* (♂) | F—*Plexippus petersi* (♂) | G—*Rhene flavicomans* (♀) | H—*Stenaelurillus lesserti* (♂) | I—*Stenaelurillus metallicus* (♂) | J—*Telamonia dimidiata* (♂) | K—*Thyene imperialis* (♂) | L—*Thyene imperialis* (♀) | M—*Scytodes lugubris* (♀) | N—*Loxosceles rufescens* (♀) | O—*Heteropoda venatoria* (♀). © John Caleb



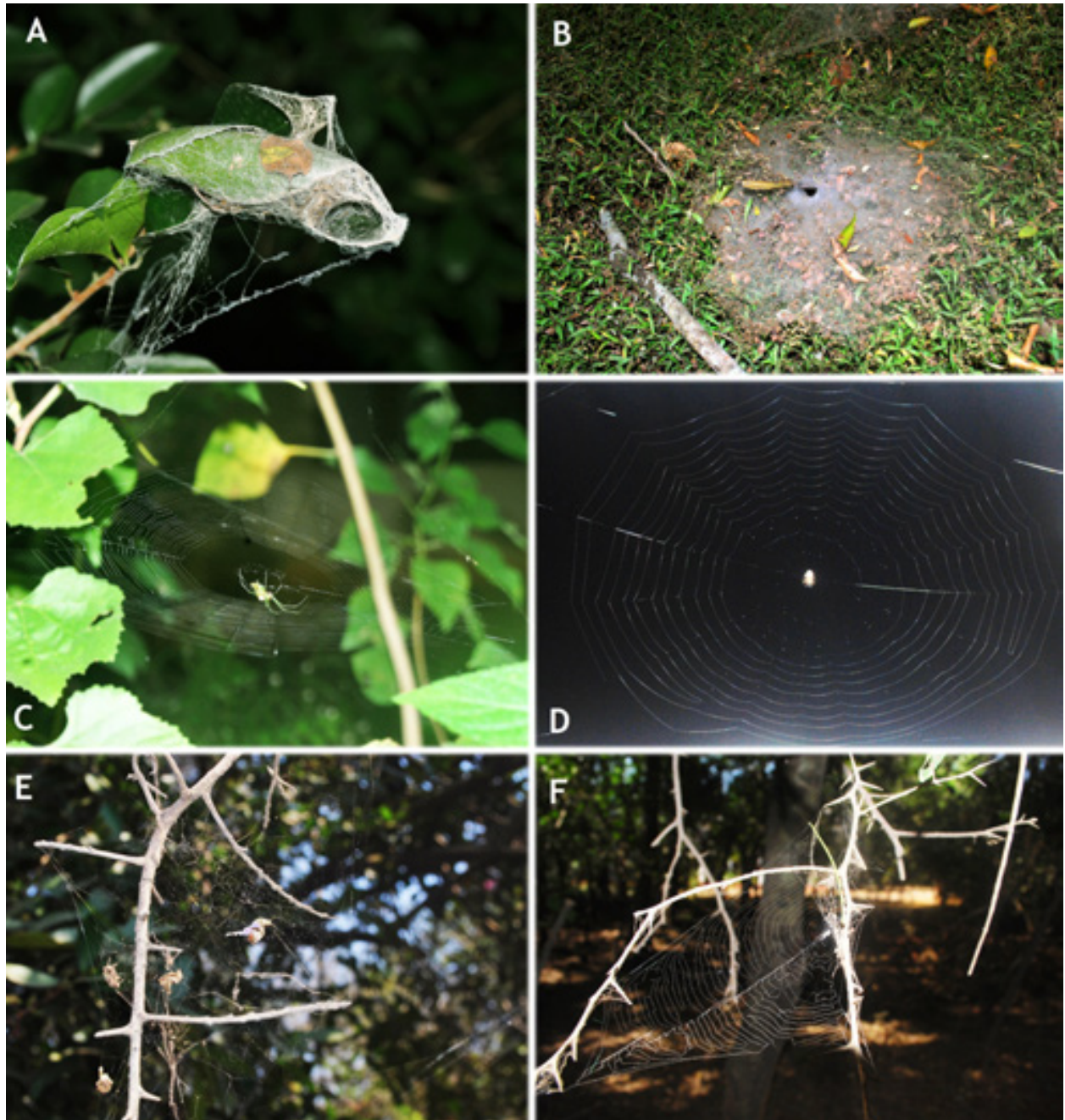
Images 30A–O. General habitus. A—*Olios lamarcki* (♂) | B—*Palystes flavidus* (♀) | C—*Guizygiella melanocrania* (♀) | D—*Leucauge decorata* (♀) | E—*Meta* sp. (♀) | F—*Tetragnatha mandibulata* (♀) | G—*Sahydroaraneus* sp. (♀) | H—*Argyroides argentatus* (♀) | I—*Ariamnes* sp. (♀) | J—*Meotipa multuma* (♀) | K—*Nihonhimea mundula* (♀) | L—*Rhomphaea projiciens* (♀) | M—*Bomis khajurjai* (♀) | N—*Henriksenella hilaris* (♀) | O—*Indoxysticus minutus* (♀). © John Caleb



Images 31A–O. General habitus. A—*Pagida salticiformis* (♀) | B—*Runcinia insecta* (♀) | C—*Synema decoratum* (♀) | D—*Thomisus pugilis* (♀) | E—*Thomisus* sp. 1 (♀) | F—*Thomisus* sp. 2 (♀) | G—*Tmarus* sp. (♀) | H—*Uloborus* sp. (♀) | I—*Hermippus* sp. (♀) | J—*Tropizodium* sp. (♀)
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Images 32A–H. Web patterns. A—*Argiope pulchella* | B—*Cyclosa hexatuberculata* | C—*Cyclosa* sp. | D—*Cyrtophora cicatrosa* | E—*Eriovixia excelsa* | F—*Parawixia dehaani* | G—*Neoscona* sp. | H—*Asianopsis liukuensis*. © John Caleb



Images 33A–F. Web patterns. A—*Stegodyphus sarasinorum* | B—*Hippasa greenalliae* | C—*Leucauge decorata* | D—*Guizygiella melanocrania* | E—*Nihonhimea mundula* | F—*Uloborus* sp. © John Caleb

(Figure 2). The different web patterns of various spider families are illustrated in Images 32A–H & 33A–F.

The diversity of invertebrates especially the arachnids have been understudied and poorly represented in the region owing to a lack of up-to-date comprehensive studies. For instance, even large and speciose family as Salticidae has been severely neglected with the vast majority of Indian forms remaining undescribed or understudied. The present study has recorded the highest

number of species (28) from this family, of which, eight were new to science. No large-scale work was undertaken in or around Chennai for more than seven decades after the early studies carried out by Sherriffs (1919, 1927) and Gravely (1921, 1924, 1931, 1935) in the early half of the 20th century.

Many species were rediscovered after several decades with no records or observations until the present study, for example, *Araneus viridisomus* Gravely (described in

Table 2. Checklist of spider species found in the Madras Christian College campus.

	Family	Species		Family	Species
1	Araneidae	<i>Anepision maritatum</i> O. Pickard-Cambridge, 1877*	42	Oecobiidae	<i>Oecobius putus</i> O. Pickard-Cambridge, 1876*
2		<i>Araneus bilunifer</i> Pocock, 1900*	43	Oxyopidae	<i>Hamataliwa</i> sp. 1
3		<i>Araneus viridisomus</i> Gravely, 1921*	44		<i>Hamataliwa</i> sp. 2
4		<i>Argiope aemula</i> (Walckenaer, 1841)	45		<i>Oxyopes hindostanicus</i> Pocock, 1901
5		<i>Argiope anasuja</i> Thorell, 1887	46		<i>Oxyopes</i> sp.
6		<i>Argiope pulchella</i> Thorell, 1881	47		<i>Peucetia viridana</i> (Stoliczka, 1869)
7		<i>Cyclosa confragra</i> (Thorell, 1892)*	48	Philodromidae	<i>Tibellus elongatus</i> Tikader, 1960**
8		<i>Cyclosa hexatuberculata</i> Tikader, 1982*	49	Pholcidae	<i>Artema atlanta</i> Walckenaer, 1837
9		<i>Cyclosa neilensis</i> Tikader, 1977**	50		<i>Crossopriza lyoni</i> (Blackwall, 1867)
10		<i>Cyrtophora cicatrosa</i> (Stoliczka, 1869)	51		<i>Pholcus phalangioides</i> (Fuesslin, 1775)
11		<i>Eriovixia excelsa</i> (Simon, 1889)	52		<i>Pholcus</i> sp.
12		<i>Eriovixia laglaizei</i> (Simon, 1877)	53	Salticidae	<i>Bianor balius</i> Thorell, 1890
13		<i>Gasteracantha geminata</i> (Fabricius, 1798)*	54		<i>Brettus</i> cf. <i>adonis</i> Simon, 1900*
14		<i>Larinia chloris</i> (Audouin, 1826)*	55		<i>Carrhotus viduus</i> (C. L. Koch, 1846)
15		<i>Neoscona molemensis</i> Tikader & Bal, 1981*	56		<i>Chrysilla volupe</i> (Karsch, 1879)
16		<i>Neoscona mukerjei</i> Tikader, 1980*	57		<i>Cocalus</i> sp.
17		<i>Neoscona vigilans</i> (Blackwall, 1865)	58		<i>Cyrba ocellata</i> (Kroneberg, 1875)
18		<i>Parawixia dehaani</i> (Dolleschall, 1859)*	59		<i>Harmochirus exaggeratus</i> Caleb & Mathai, 2015*
19		<i>Poltys nagpurensis</i> Tikader, 1982*	60		<i>Harmochirus zabkai</i> Logunov, 2001
20	Cheiracanthiidae	<i>Cheiracanthium</i> sp.	61		<i>Hasarius adansoni</i> (Audouin, 1826)*
21	Clubionidae	<i>Clubiona filicata</i> O. Pickard-Cambridge, 1874*	62		<i>Hyllus manu</i> Caleb et al., 2014*
22	Corinnidae	<i>Aetius decollatus</i> O. Pickard-Cambridge, 1896*	63		<i>Hyllus semicupreus</i> (Simon, 1885)*
23		<i>Castianeira flavipes</i> Gravely, 1931*	64		<i>Langona albolinea</i> Caleb & Mathai, 2015*
24		<i>Coenoptychus pulcher</i> Simon, 1885*	65		<i>Langona davidi</i> (Caleb, Mungkung & Mathai, 2015)*
25		<i>Corinnomma severum</i> (Thorell, 1877)*	66		<i>Langona tigrina</i> (Simon, 1885)*
26	Deinopidae	<i>Asianopis likuensis</i> (Yin, Griswold & Yan, 2002)	67		<i>Menemerus bivittatus</i> (Dufour, 1831)*
27	Eresidae	<i>Stegodyphus sarasinorum</i> Karsch, 1891	68		<i>Myrmaplata platyleoides</i> O. Pickard-Cambridge, 1869
28		<i>Stegodyphus tibialis</i> (O. Pickard-Cambridge, 1869)	69		<i>Myrmarachne melanocephala</i> MacLeay, 1839
29	Gnaphosidae	<i>Poecilochroa tridatus</i> Caleb & Mathai, 2013*	70		<i>Phanuelus gladstone</i> Caleb & Mathai, 2015*
30		<i>Zelotes tambaramensis</i> Caleb & Mathai, 2013*	71		<i>Phintella vittata</i> (C. L. Koch, 1846)*
31	Hersiliidae	<i>Hersilia savignyi</i> Lucas, 1836	72		<i>Phintelloides jesudasi</i> (Caleb & Mathai, 2014)*
32		<i>Hersilia tibialis</i> Baehr & Baehr, 1993*	73		<i>Phlegra prasanna</i> Caleb & Mathai, 2015*
33	Idiopidae	<i>Idiops constructor</i> (Pocock, 1900)*	74		<i>Plexippus paykulli</i> (Audouin, 1826)*
34	Liocranidae	<i>Oedignatha scrobiculata</i> Thorell, 1881	75		<i>Plexippus petersi</i> (Karsch, 1878)*
35	Lycosidae	<i>Draposa atropalpis</i> (Gravely, 1924)*	76		<i>Rhene flavicomans</i> Simon, 1902*
36		<i>Hippasa greenalliae</i> (Blackwall, 1867)	77		<i>Stenaelurillus lesserti</i> Reimoser, 1934*
37		<i>Hippasa madraspatana</i> Gravely, 1924*	78		<i>Stenaelurillus metallicus</i> Caleb & Mathai, 2016*
38		<i>Lycosa bistrata</i> Gravely, 1924	79		<i>Telamonia dimidiata</i> (Simon, 1899)*
39		<i>Lycosa indagatrix</i> Walckenaer, 1837*	80		<i>Thyene imperialis</i> (Rossi, 1846)
40		<i>Wadicosa fidelis</i> (O. Pickard-Cambridge, 1872)	81	Scytodidae	<i>Scytodes lugubris</i> (Thorell, 1887)*
41		<i>Wadicosa quadrifera</i> (Gravely, 1924)*	82	Sicariidae	<i>Loxosceles rufescens</i> (Dufour, 1820)*

	Family	Species
83	Sparassidae	<i>Heteropoda venatoria</i> (Linnaeus, 1767)
84		<i>Olios lamarcki</i> (Latreille, 1806)
85		<i>Palystes flavidus</i> Simon, 1897*
86	Tetragnathidae	<i>Guizygiella melanocrania</i> (Thorell, 1887)*
87		<i>Leucauge decorata</i> (Blackwall, 1864)
88		? <i>Meta</i> sp.
89		<i>Tetragnatha mandibulata</i> Walckenaer, 1841
90	Theraphosidae	<i>Sahydroaraneus</i> sp.
91	Theridiidae	<i>Argyrodes argentatus</i> O. Pickard-Cambridge, 1880*
92		<i>Ariamnes</i> sp.
93		<i>Meotipa multuma</i> Murthappa et al., 2017**
94		<i>Nihonhimea mundula</i> (L. Koch, 1872)*
95		<i>Rhomphaea projiciens</i> O. Pickard-Cambridge, 1896*
96	Thomisidae	<i>Bomis khajurjai</i> Tikader, 1980*
97		<i>Henriksenia hilaris</i> (Thorell, 1877)
98		<i>Indoxysticus minutus</i> (Tikader, 1960)*
99		<i>Pagida salticiformis</i> (O.P.-Cambridge, 1883)**^
100		<i>Runcinia insecta</i> (L. Koch, 1875)
101		<i>Synema decoratum</i> Tikader, 1960*
102		<i>Thomisus pugilis</i> Stoliczka, 1869*
103		<i>Thomisus</i> sp. 1
104		<i>Thomisus</i> sp. 2
105		<i>Tmarus</i> sp.
106	Uloboridae	<i>Uloborus</i> sp.
107	Zodariidae	<i>Hermippus</i> sp.
108		<i>Tropizodium</i> sp.

*—Endemic to India | ^—Endemic to India and Sri Lanka | —New to Tamil Nadu
| **—New to India.

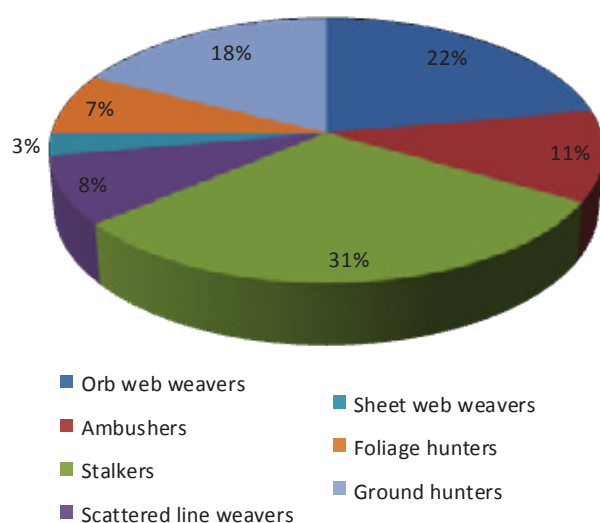


Figure 2. Guild structure of spiders from MCC campus.

1921 and recorded only in 2014; Caleb & Mathai 2014), *Aetius decollatus* O. Pickard-Cambridge (recorded by Reimoser in 1934 and rediscovered in 2016; Caleb & Mathai 2016; Sudhin et al. 2016), *Coenoptychus pulcher* Simon (recorded in 1931 by Gravely and rediscovered in 2018; Paul et al. 2018 and present study). Two species (*Oxyopes hindostanicus* Pocock, 1901 and *Langona tigrina* (Simon, 1885)) were redescribed based on original type specimens only and have not been recorded or collected again. These have been recorded and illustrated in the present study. Such vast intervals between sightings/reports indicate the poor state of faunistic studies in the Indian context.

MCC has a very rich and diverse habitat structure (Images 2A–H). The vegetation structure is predominantly tropical dry evergreen forest (Lal & Livingstone 1978; Amirthalingam 2005). Satellite data showed that over 99% of the area under scrub jungle vegetation has been lost in Chengelpet, near Tambaram (Shankar-Raman et al. 1996). Currently 95% of the potential area under evergreen type is under cultivation, 4.5% under thicket, and barely 0.5% remains under scrub-woodlands. This 5% group has been placed under *Albizia amara* plesioclimax community with several sub-communities and transitions (Meher-Homji 1973).

Despite the rapid loss of habitat and destruction around the MCC campus, the campus itself on the other hand has conserved rapidly vanishing unique habitat of the scrub regions and the tropical dry evergreen forest with much of the native flora and fauna intact (Phillips & Jesudasan 2013). This fact has been supported by the recent discovery of many new species of fungus (Hosagoudar et al. 2009), white flies (Phillips & Jesudasan 2013), and spiders (Caleb & Mathai 2013, 2014a, 2015, 2016; Caleb et al. 2014, 2015, 2020) from the campus. During the recent past, however, fragmentation and human interference is gradually taking its toll in the campus for educational, housing, developmental activities and recreational facilities. Therefore, conservation and protection of these last left exclusive lifelines which are home to several unique species is the need of the hour.

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Spider (Arachnida: Araneae) fauna of the scrub jungle in the Madras Christian College campus, Chennai, India

– John T.D. Caleb, Pp. 15711–15766

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